

# **Pupils' conceptions of learning geography under the National Curriculum**

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## **Abstract**

### **Pupils' conceptions of learning geography under the National Curriculum**

Conceptions of geography and learning geography have been studied through recording the experiences of a group of secondary school pupils over a three-year period. This group formed part of the first cohort to experience Key Stage 3 Geography in the National Curriculum.

The study is set within the context of Geography in the National Curriculum and the formulation and issues arising from this are discussed. A review of recent research in geographical education is presented to indicate how this study adds to current thought and practice.

The study sought evidence to answer two specific questions:

1. What is geography?
2. What is learning geography?

The study is set in a secondary school in Kent where the researcher has taught for sixteen years. Evidence was obtained from two classes of pupils, these were

taught geography by the researcher for the whole period of Key Stage 3 1991-1994. Data was obtained through applying a range of methods.

The study was conducted in the phenomenographic tradition, seeking qualitatively different ways in which pupils understood the phenomena of geography and learning geography, and describing the "structural" and "referential" aspects of each.

Categories of description of the distinctly different ways in which the phenomena are understood have been identified, presented and discussed. The categories are illustrated by quotes from individual pupils. These form the results of the study.

The results of the study shed light on the ways in which pupils understand aspects of geography and learning geography as developed in the context of Geography in the National Curriculum. The longitudinal perspective adopted illuminates how these understandings change over time.

A discussion is presented which clarifies the main features of the conceptions discovered. This is followed by a consideration as to how the results of the research could be applied by teachers to their understanding of geography, the pupils they teach, and in planning learning experiences.

The thesis concludes by drawing together the contextual setting of the research, methodology and key findings. It suggests reasons that may have influenced the findings before considering their utility and avenues for further research.



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## CHAPTER ONE

### INTRODUCTION

This thesis reports research undertaken into one element of what some have called the most sweeping reform in education in England and Wales since 1944 (Graham, 1993): the National Curriculum. McNamara (1990) (and others) observed that educational researchers had not been involved in the formulation and establishment of the new National Curriculum. However, if they wish to have any impact on practice during the next few years their research,

“must be firmly rooted within the content of education, namely a curriculum which is laid down by the National Curriculum Council and subsequently enacted in the classroom in various ways by practising teachers” (*ibid* p226).

The present research attempts to meet McNamara's criteria by focusing on the statutory Order for Geography in the National Curriculum at Key Stage 3 as implemented in one school and experienced by a particular cohort of pupils. This beguilingly simple and obvious area of study, however, was the result of a developmental process that took three years to come to fruition. Before discussing the present research in more detail, I will first consider how the focus of it developed over time.

### **Developing the research question**

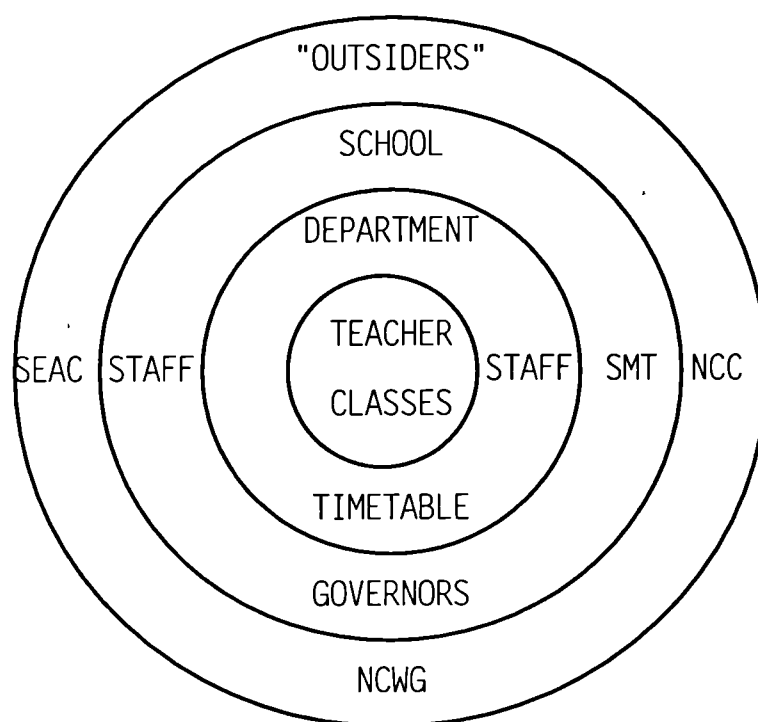
In 1989, as a classroom teacher, and similar to many in the geography community, I had a keen interest in the debate that was considering the style and content of the proposed Geography in the National Curriculum (GNC).

By the summer of 1990, having participated in local and regional curriculum consultation procedures for various groups, I became specifically interested in the implications of an imposed Geography National Curriculum on a school department (particularly the 11-14 age range). As head of one such department, one of my main roles would be to manage the introduction of this legislated curriculum and evaluate its impact on teaching and learning.

My view at that time (Figure 1) was one which saw “outsiders” as being responsible for the format of the National Curriculum and this would then ‘filter’ through to myself and pupils after modification by the philosophy, policies and actions of the school and geography department. My initial intention was to evaluate the impact of GNC from the perspective of each of the groups identified in Figure 1. However, the speed of developments and the workload thrust upon the members of the Geography Working Group, (GWG), resulted in serious problems in arranging interviews of the ‘key players’ in the process. Interviews though were obtained with appointees of the National Curriculum Council (NCC) and the School Examinations and Assessment Council (SEAC) (in their personal capacities) and a great deal of documentation became available. Yet as time passed the practicality of implementing the new curriculum grew ever more important.

By May 1991 my research diary indicates that the proposal, as originally envisaged, was too large in scope. Through discussion with my supervisor and personal reflection, it became clear that my main interest was in school level curriculum development. This resulted in the first modification of the research

Figure 1: Original research proposal



Key

- SEAC - Schools Examination and Assessment Council
- NCWG - National Curriculum Working Group
- NCC - National Curriculum Council
- SMT - Senior Management Team

Figure 2: The revised research proposal.

<b>Department/teacher issues</b>	<b>Pupil issues</b>
What do the teachers understand by the subject of geography?	What do pupils understand by the National Curriculum?
What is the process of school based curriculum development?	What are the pupil experiences of National Curriculum Geography?
What influence has the National Curriculum had on this process?	
What issues arise from the implementation of the National Curriculum?	
How are these issues managed?	

plan, with a decision being made to focus upon the issues facing the department, its staff and the pupils. The issues identified were distilled into the series of questions shown in Figure 2.

The data already collected became background information helping to set the scene and contextualise findings. This revised research aim also allowed for a much more pragmatic approach in terms of data collection, in that the sources were present everyday at school and I had relatively easy access to them.

Thus, using the methods discussed in Chapter 4, data pertinent to the questions in Figure 2 was collected. In addition to this I was trying to develop a route through the research which would facilitate its writing up as well as preparing for and teaching the National Curriculum.

During the academic year 1993 I became aware of a paper by Gerber (1992) on the use of phenomenography in geographical research. This proved to be the catalyst for a further, third and final revision of my project. After reading Tesch's

(1990) review of qualitative approaches to analysis, phenomenography (Chapter 4) appeared to be well suited to the project I had undertaken. With this in mind I produced an outline proposal (Figure 3) and after discussion with two colleagues and further reflection the focus of the research became the pupils experience of Key Stage 3 Geography in the National Curriculum. As a result, it was this realisation that enabled me to converge with new clarity on the nature and content of my research during the third and final year of data collection. I continued using the two main questions outlined in Figure 2 as a guide, but specifically concentrated on obtaining data pertinent to the second question - what are the pupils' experiences of GNC?

This question had to be simplified so that the pupils could respond accordingly. Thus I created a set of sub-questions (Chapter 4, Figure 8) with the intention of garnering evidence to answer what became the focus of this study, pupils understanding of:

1. What is geography?
2. What is learning geography?

This overt discussion of the formulation of my research project may suggest to the reader that I had a plethora of confused ideas to begin with and that perhaps I should have waited before commencing data collection until these ideas had been distilled more clearly. However, I would argue that the decisions made were shaped by principle, that is, my understanding of the research as it developed. As Bryman and Burgess state,

“qualitative research cannot be reduced to particular techniques or set stages, but rather that a dynamic process is involved which links together problems, theories and methods.” (1994, p2)

They continue, paraphrasing Bogdan and Biklen (1982), that while in the field,

"strategies include: forcing oneself to narrow down the focus of the study; continually reviewing field notes in order to determine whether new questions could fruitfully be asked...and trying out emergent ideas." (*ibid* p7)

Bechhofer summarises the nature of qualitative research when he states that,

"the research process, then, is not a clear cut sequence of procedures following a neat pattern, but a messy interaction between the conceptual and empirical world." (1974, p73)

Thus, three years into the study, its focus had distilled into reporting pupils' conceptions of geography through their understanding of what geography and its learning means, set in the context of GNC.

### **The structure of the study**

Figure 3 provides an outline of the structure of the thesis. Chapter 2 provides background, contextual information regarding the formulation and implementation of GNC at the system level. A review of the commentary that took place at the time is presented, as are personal comments from representatives of the NCC and SEAC<sup>1</sup>. It is not the intention to discuss the merits or otherwise of GNC in this chapter but to provide the reader with an understanding of the context in which this research is set.

The following chapter reviews the literature concerned with research into pupils' perspectives of geography and its learning. It also provides a commentary of the recent research that has been undertaken with reference to GNC. One of the main findings of Chapter 3 is that there has been little, if any research, that asks fundamental questions of the pupils regarding geography and its learning. At the

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<sup>1</sup> Quotes from published sources are presented in normal type, personal quotes are in italics.

secondary school level, teachers have been the focus of research into GNC. And that a number of major recent textbooks aimed at teachers fail to mention pupils in any other context than 'receivers' of geography.

The methodological considerations are explicated in Chapter 4. Underlying ontological and epistemological concerns are aired, before a discussion of the phenomenographic approach is presented. The research was conducted in the phenomenographic tradition, seeking qualitatively different ways in which the pupils understood the phenomena of geography and learning geography.

The subjects of the research were a cohort of between 48-55 pupils, who at the commencement of the study in September 1991 were in year 7 (11 years old). By July 1994 at the end of Key Stage 3 they were 14 years old (year 9).

The principle methods used to uncover the pupils understanding of geography and its learning were diaries and semi-structured interviews. A number of pre-determined questions (Figure 8), which approached the phenomena from different angles, were used, enhancing the opportunity of obtaining a full picture of the pupils' understanding.

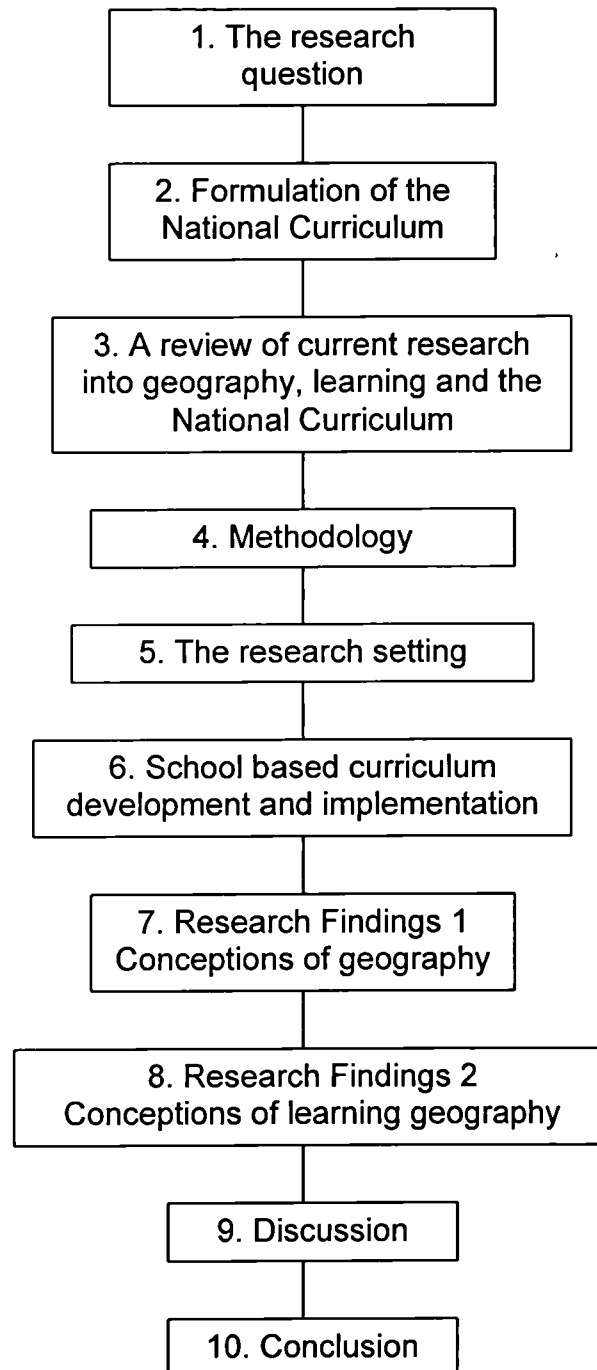
A longitudinal approach to the research was adopted to allow for the discovery of any changes in, or additions to, the conceptions over the three-year period.

The following two chapters present the context in which the research took place. Chapter 5 provides a picture of the school during the period of data collection. It attempts to offer a dynamic account of change over a four-year period through focusing on the major issues of the time. Unlike many studies the school is named, this after discussion with the Headteacher who answered in the affirmative regarding this decision<sup>2</sup>.

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<sup>2</sup> The anonymity of the research subjects, the pupils, via the decontextualisation of their views through the method of data analysis adopted influenced this decision (Chapter 4).

Figure 3: The final version of the research proposal.





The introduction and development of GNC at the school is discussed in Chapter 6. A chronological account of the main features of the process is presented. A section discussing the main issues that were the outcome of the process follows this. Direct quotes from teachers are used to illustrate their concerns (a coding system provides anonymity). Although these concerns were often pragmatic, questions relating to the meaning of geography and its learning were never far from the surface.

Chapters 7 and 8 present the results of the phenomenographic analysis of the data. Three conceptions of geography and five conceptions of learning geography are stated. Categories of description and their illumination by reference to pupil quotes are provided in an attempt to explicate a description of each conception. The results of the study indicate a longitudinal development of the conceptions and suggest that some are more prevalent than others. This in turn presents an interesting challenge to teachers in planning and delivering geography in the context of the National Curriculum.

I do not claim that my research could effect policy or practice. Rather, I have attempted to meet some of the demands formulated by McNamara (1990) (see page 13 of this volume). I have striven to present a narrative with which the reader can associate and recognise elements of their own experience. As with most qualitative research it requires the reader to reflect on their own practice and experiences and to take from this that which they find useful and apply it to their own situation.

## **CHAPTER TWO**

### **THE DEVELOPMENT OF GEOGRAPHY IN THE NATIONAL CURRICULUM**

This chapter provides an account of the educational context at the system level, of the present research. The first section briefly describes the process of the formulation of a National Curriculum in England and Wales. The second part outlines in more detail how Geography in the National Curriculum (GNC) came into existence. In discussing this, rather than provide a historical commentary, the five major components involved in the process will be considered. These are: The National Curriculum 5-16: A Consultation Document; the report of the Task Group on Assessment and Testing (TGAT); the Interim and Final Reports; passing into law, the Orders and implementation of the Order and beyond. Discussion of these will include comments from the various interested parties at the time.

#### **The formulation of the National Curriculum**

##### **1. The National Curriculum 5-16 consultation document**

The National Curriculum now existent in England and Wales had its genesis in the period of December 1986 to January 1987. The then Secretary of State for Education, Kenneth Baker, in a speech to the Society of Education Officers, declared,

“I believe that, as far as England is concerned we should now move quickly to a National Curriculum. By that I mean a school curriculum governed by national criteria which are promulgated by the Secretary of State but in consultation with all concerned...and are sufficiently flexible to allow schools and teachers to use professional enterprise and judgement in applying them to individual pupils and their schools. I want to finish up with criteria which are broadly acceptable to those who have to apply them because they have a say in their determination.” (DES, 1987a)

The National Curriculum thus became a major theme in the Conservative government's manifesto. After their success in the 1987 election the new administration soon had in motion the machinery needed to translate the manifesto into reality.

The National Curriculum 5-16: A Consultation Document (DES, 1987b) outlined the rationale and possible structure for a National Curriculum. It clarified the government's thinking in six areas: the need for a National Curriculum, components and arrangements for assessment, contents of the legislation, further arrangements to back up the National Curriculum, resources and timing of implementation (*ibid*).

The document, although noting that some progress had been made towards an agreed curriculum and improved standards, suggested that improvements should occur at a greater pace and consistency, increasing at least as quickly as those of competitor countries (*ibid*). The aim was to, “secure for all pupils in maintained schools a curriculum which equips them with the knowledge, skills and understanding that they need for adult life and employment [and] provides the same opportunities wherever they go to school” (*ibid* p3). A National Curriculum will increase standards of attainment through,

“1. ensuring that all pupils study a broad and balanced range of subjects throughout their compulsory schooling;

2. setting clear objectives for what children over the full range of ability should be able to achieve;
3. ensuring that all pupils regardless of sex, ethnic origin or geographical location, have access to broadly the same good and relevant curriculum and programmes of study which include key content, skills and processes which they need to learn;
4. checking on progress towards these objectives and performance achieved at various stages." (*ibid* pp 3-4)

The document argued that the commonality within the curriculum should allow pupils to move around the country with the minimum disruption to their education (*ibid*). Finally, it suggested that schools should become more accountable for the education they are offering to the pupils, this being achieved through self-evaluation and reference to agreed national targets for attainment (*ibid*).

From this brief description of the genesis of the National Curriculum three major strands are identifiable, first, the assumption that a National Curriculum and its attendant objectives and assessment would raise standards. Second, that a National Curriculum would provide the balanced and relevant education necessary for adulthood and, third, that it would generate greater accountability at all levels in the 5-16 state education system.

However, these aims could not be achieved without a framework in which to construct the National Curriculum. The framework proposed in the consultation document was grounded in a subject-based structure. A model consisting of ten subjects allocated to two tiers, core and foundation, was proposed. The core subjects consisted of English, mathematics and science (plus Welsh in Wales), with the foundation tier including a modern foreign language, art, geography, history, music, physical education and technology. For some this ensemble was unsuitable as,

“merely to list subjects in this way,...is clearly not enough. For these names in themselves mean little and it is possible to conceive of, and to define, all these subjects in many different ways” (Kelly, 1990, p3).

The consultation document outlined the structure of attainment targets (ATs), programmes of study (PoS) and assessment arrangements relating to the subjects. Thus, the 1988 Education Reform Act stated that each subject should specify,

- “(a) the knowledge, skills and understanding which pupils of different abilities and maturities are expected to have at the end of each Key Stage (attainment targets);
- (b) the matters, skills and processes which are required to be taught to pupils of different abilities and maturities during each Key Stage (the programmes of study); and
- (c) the arrangements for assessing pupils at or near the end of each Key Stage for the purpose of ascertaining what they have achieved in relation to the attainment targets for that stage (assessment arrangements).” (ERA, Section 2, (2), p2)

These three facets referred to the 'Key Stages', the age groupings around which the National Curriculum and its attendant assessment was organised. Pertinent to the present research is Key Stage 3, ages 11-14 or years 7-9 of schooling. Thus, to summarise, the National Curriculum became,

“not only a list of subjects, not only of statements of the content of these subjects expressed in terms of ‘knowledge, skills and understanding’ and ‘matters, skills and processes’, but also of detailed statements of levels of attainment regarded as the norm for pupils at four Key Stages in their period of compulsory education - 7+, 11+, 14+ and 16+ - and of an elaborate structure of assessment arrangements to discover whether pupils have reached the appropriate levels at each Key Stage.” (Kelly, 1990, p5)

To facilitate the development of the assessment arrangements the government constituted a working party to consider and report on this area and it is to this group the discussion now turns.

## **2. Task Group on Assessment and Testing (TGAT)**

It was the remit of TGAT, "to advise on the practical considerations governing assessment within the National Curriculum" (DES, 1988b, para 1). It is not the aim of this section to fully discuss the merits or otherwise of this report, however, a number of issues are pertinent. At the centre of the TGAT philosophy is the view that,

"Promoting children's learning is a principal aim of schools. Assessment lies at the heart of this process... The assessment process itself should not determine what is to be taught and learned. It should be the servant, not the master, of the curriculum." (*ibid*)

The report then describes four criteria underpinning the proposed system of national assessment,

- the assessment results should give direct information about pupils achievement in relation to objectives: they should be criterion referenced;
  - the results should provide a basis for decisions about pupils further learning needs; they should be formative;
  - the scales or grades should be capable of comparisons across classes and schools, if teachers, pupils and parents are to share a common language and common standards: so the assessments should be calibrated or moderated;
  - the ways in which criteria and scales are set up and used should relate to expected routes of educational development, giving some continuity to a pupils' assessment at different ages: the assessments should relate to progression."
- (*ibid*)

Such goals can be traced through to the proposals that individual subjects,

“should report a small number (preferably no more than four and never more than six) of profile components reflecting the variety of knowledge, skills and understanding to which the subject gives rise.” (DES, 1988b, recommendation 6)

Further, that subject working groups should,

“define a sequence of levels in each of its profile components, related to broad criteria for progression in that component. For a profile component which applies over the full age range 5-16, there should be 10 such levels.” (*ibid* recommendation 20)

In implementing the assessment procedures the working groups should first,

“decide on a limited number, usually 4, of profile components in relation to which any pupil's performance will be assessed and discussed. A criterion referenced set of levels should be set out for each component, to span the full range of performance over the ages for which the component is applicable.” (*ibid* recommendation 40)

Also, subject working groups,

“should specify, in broad terms and for each profile component, the appropriate tests (Standardised Assessment Tasks) which should be prepared, and the advice and help which should be given to teachers about their internal assessments.” (*ibid* recommendation 41)

The TGAT report elicited a number of comments. In terms of geography, the Geographical Association submitted an eleven-page report as its response. The Association supported a number of the assessment principles outlined as well

as the various modes of assessment and use of profile components. However it was particularly concerned about the lack of clarity in self assessment, analysis of attitudes and values, testing at 7 and 11 years, the use of a 10 level linear model and publication of results (Geographical Association, n.d.). By 1990 commentators were stressing that the report was an illusion that would perhaps work in certain subjects but could not be applied to the whole curriculum or age range (Brighouse and Hunter, 1990). My own concern about the report did not manifest itself until the Interim Report for Geography was published when the full implications of the attainment targets, statements of attainment and profile components became explicit.

Thus the framework of the curriculum and its assessment arrangements were outlined before the actual content of each subject was identified. The latter task fell to the subject working groups. Each subject had its own group, working under common terms of reference that included information on background, the task and approach to be taken (Appendix A) with supplementary guidance being provided for the chairman (Appendix B). Essential to each group's report was an outline the subject could make to the overall curriculum, reference to knowledge, understanding and skills defined in terms of level of attainment and profile components, its thinking about programmes of study and a consideration of the assessment issues and cross curricular links.

Each subject group produced an Interim Report that was open to consultation amongst a wide audience before drafting the Final Report to be submitted to the National Curriculum Council (NCC) (Figure 4). After submitting the Final Report, the subject group's work was complete and the NCC continued the consultation process. The aim of consultation was to produce recommendations in a form that could be translated into draft Order format. This manifested itself as a report that was submitted to the Secretary of State for his deliberations. After discussion within the DES, the Secretary of State then published a Draft Order, itself subject to statutory consultation, which was then laid before Parliament.



Figure 4 diagrammatically represents the process, with the time scale for the core and some of the foundation subjects from genesis to implementation being less than three years.

### **Geography in the National Curriculum**

In this section, a commentary exploring the nature and origin of Geography in the National Curriculum (GNC) will be presented. The main features of the process will be considered including a personal perspective taken from my own diaries written at the time.

Figure 5 is a calendar indicating the notable dates and publications. A chronological approach will be used to discuss the formulation of GNC.

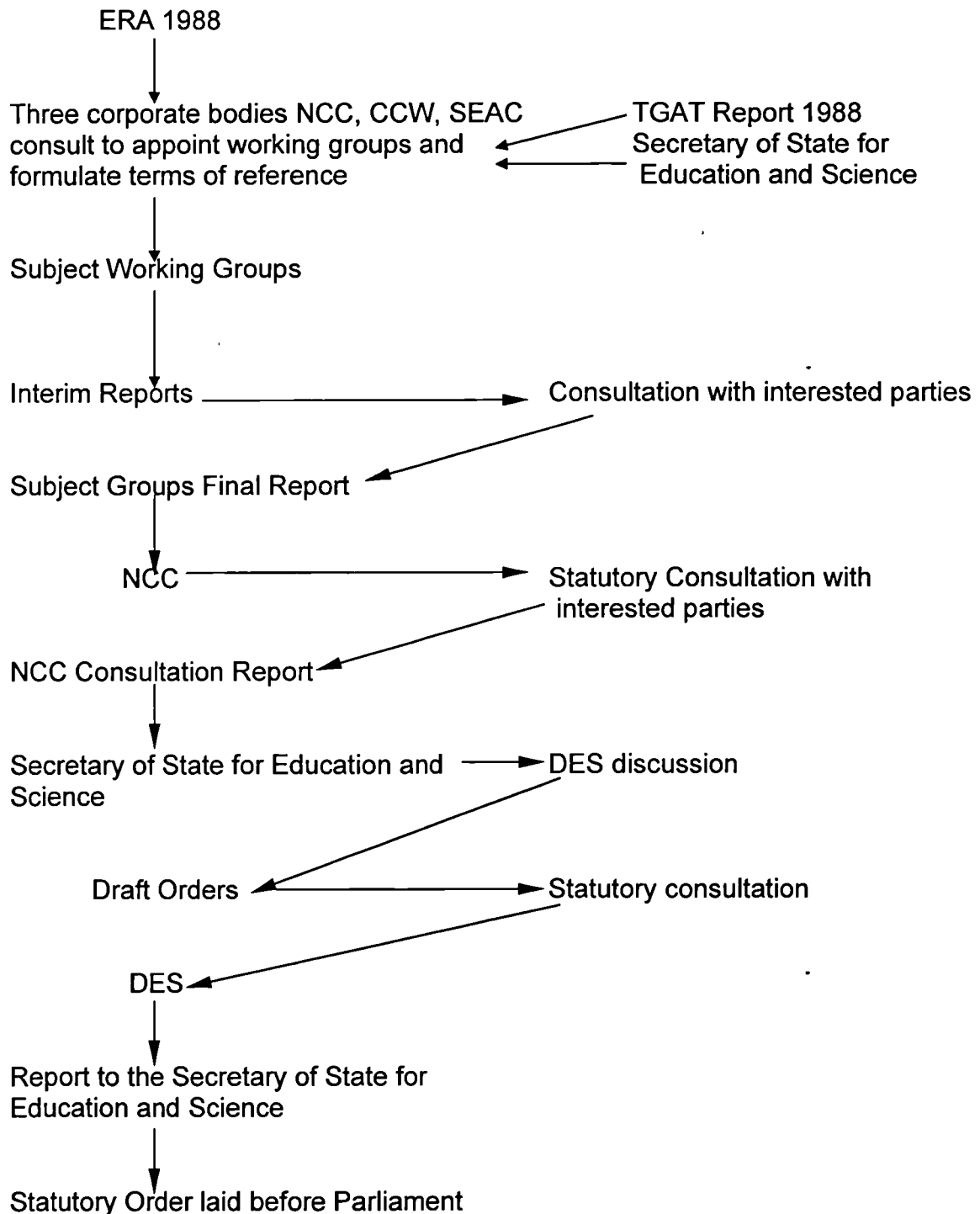
Geography was established as a foundation subject in the National Curriculum in 1988 with the passing into law of the Education Reform Act (for a discussion of the machinations preceding this see Bailey and Binns 1987, Bailey 1989). In March 1989 the Geographical Association published its report *Geography in the National Curriculum*,

“with the setting up in the Spring of 1989 of a Geography Working Group by the Department of Education and Science and the Welsh Office, the debate about the geography children are to study will begin in earnest. The report has been written to inform that debate.” (Daugherty, 1989, p3)

Catling suggested it was important to inform the debate,

“because what is fundamentally important in the development of attainment targets, programmes of study and assessment procedures in geography is that geographers - academics, teachers and enthusiasts - contribute fully to the formulation of these, by offering proposals early in the life of the National Curriculum geography working group rather than just by responding to its

Figure 4: The formation and implementation of the National Curriculum



**Figure 5: Geography in the National Curriculum: a calendar of intended events**

Curriculum	
Date	Event
March 1989	Geography in the National Curriculum: A Viewpoint from the Geographical Association
May 1989	Geography Working Group constituted - brief and framework provided
November 1989	Interim Report published
Early 1990	Interim Report: consultation period
April 1990	Submission of Final Report
June 1990	Final Report: Geography for ages 5-16
July - September 1990	Final Report: consultation period
November 1990	NCC Report: Geography consultation
January 1991	National Curriculum: Draft Order for Geography
January - February 1991	Draft Order: consultation period
March 1991	Geography in the National Curriculum Order laid before Parliament: Ring binder published
May 1991	NCC non-statutory guidance: Geography published England
May - July 1991	KS4 short course consultation
July 1991	Non statutory guidance Wales published
September 1991	KS 1,2,3 first cohort commences
October 1991	NCC Consultation on short course published
November 1991	KS4 Short Course published
August 1992	KS4 Short Course becomes law
1993	KS1 first statutory assessment
1994	KS3 first statutory assessment
September 1994	KS4 first cohort commences
1995	KS2 first statutory assessment
1996	KS4 first statutory assessment

interim and final reports. There is a chance to be proactive rather than reactive.”  
(TES 24.3.89)

The ‘Blue Book’, as it became known, presented a holistic approach to geography outlining the subject’s contribution to education, setting it within the National Curriculum framework and discussing teaching and learning. Profile components, attainment targets and programmes of study were proposed and various issues such as INSET and fieldwork were discussed.

When interviewed as to the reason for this the editor responded,

*“the influence of maths/science experiences and the fact that the pace of developments were catching people out indicated a need. Geography also had more time than these other subjects so this provided the opportunity for people to collect their thoughts and rehearse some of the arguments.”* (Daugherty, personal communication, 1991)

Further,

*“the Blue Book was an attempt at professional coherence. Other subjects had reports to fall back on, such as the Science Review and Kingman, geography had nothing. In geography education there was a lack of consensus, the Blue Book tried to overcome this.”* (ibid)

When pressed, that by producing such a holistic document the debate could be restricted, as people’s views are pre-empted, he responded,

*“some sections of the book still stand up, for example those on assessment and cross curricular themes were pushing back the boundaries of geographical thinking. The question I would ask is why wasn’t the book more influential? Though I do accept the Geography Working Group would want to develop its own view of the task and not take too much account of any existing approach. In the end it hadn’t much obvious effect.”* (ibid)

The truth of the final assertion made by Daugherty is open to question as four members of the Geography Working Group (GWG) were involved in the compilation of the book. Sir Leslie Fielding (GWG Chairman) suggested that it proved a useful source of information and ideas (DES, 1989). The much-vaunted cube (Figure 6) actually found its way, albeit in modified form, into both the Interim and Final Report. However, it is likely that the book did not have as great an influence as the authors originally hoped.

## **1. The Interim and Final Reports**

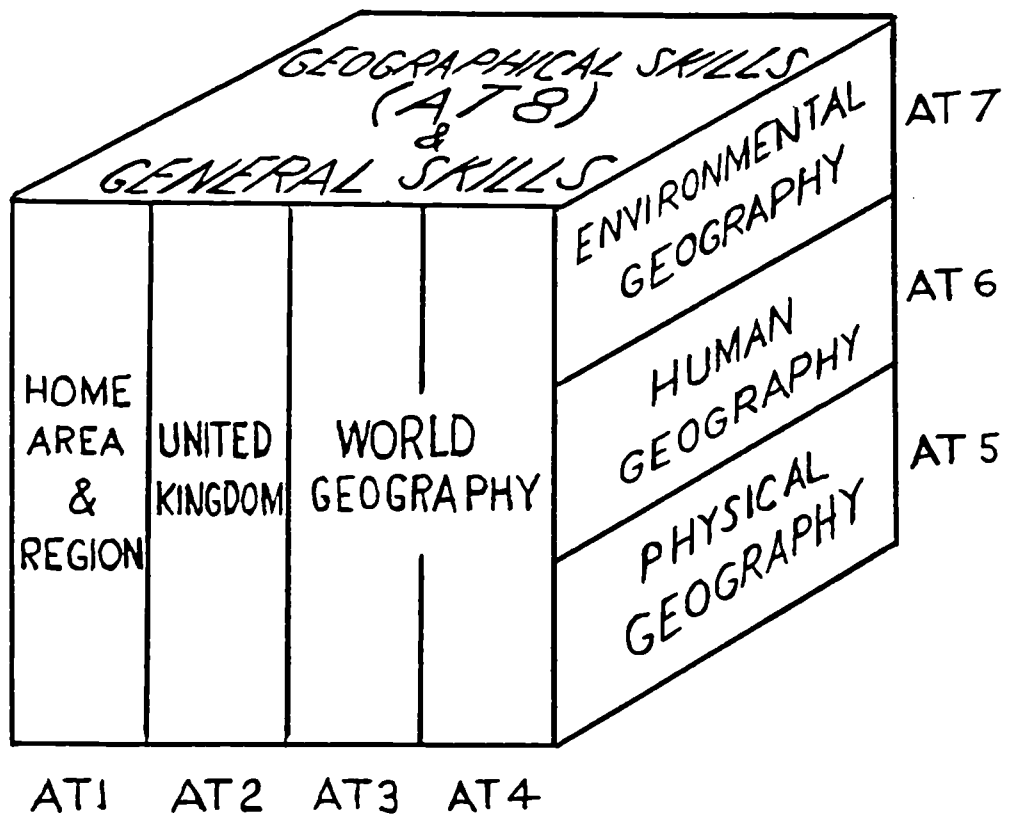
In the six months available to the GWG before publication of the Interim Report, submissions from seventy-two different groups and individuals were taken. The Geographical Association again produced a substantial document, the aim of which was, "to focus on areas felt to be important by the Association" (Catling, 1989, p1).

### **a. The Interim Report**

The Interim Report published in November 1989 suffered considerable criticism although Proctor claimed that, "the launch...has gone off like a damp squib. Yet the content of the report could not be more explosive" (Education, 23.3.90, p10).

The report began by explaining the machinations of the GWG, outlined the aims of the subject and considered the nature of geography in schools at the time. Time allocations, assessment and testing issues were noted. The second section covered the rationale for the structure of the Attainment Targets (ATs) and programmes of study (PoS) through the use of the cube (Figure 6). The final two sections detailed the proposed PoS and ATs with examples of syllabus construction. The Interim Report proposed 8 ATs and 248 statements of attainment (SoAs) with 150 of these being concentrated in level 4-7 and ATs 6

Figure 6: The Interim Report 'Cube'



and 8 containing 134. The Interim Report also introduced the idea of strands in ATs and although not actually defined it appears that these were to indicate progression in terms of complexity, scale, abstraction and breadth (DES, 1990).

Three major issues arose from the publication of the report: content selection (and the criticism that the curriculum had been built on a 'deficit model'); enquiry learning; and assessment. These, however, were not to be unique to this document and will be discussed in more detail in the context of implementing GNC (Chapter 6).

My own diary reflections at the time suggested that the document had certain fundamental flaws. First,

*"the report appears to be content rich with too much explicitly stated knowledge, particularly in the early years. The rationale for the focus on so much knowledge is not clearly argued and it seems that the stress on this element of the subject is a response to the perceived lack of place knowledge of today's pupils. To cover so much content would only be possible if I returned to an approach to teaching that typified my O-level classes, that is a didactic transmission model."*  
(Personal diary entry, 1990)

Also, I wondered as to whether the 'Area' ATs really represented true 'attainment' or just lists of places to be studied. As I wrote,

*"would it not be better to have criteria for the choice of places to be studied which would then be subsumed in the thematic ATs. With so many SoAs particularly relating to places how were these to be assessed?" (ibid 1990)*

The role of the strands was also unclear, were they to be organisers of learning or there for assessment at different levels? If they were present to indicate progression, *"how did one show this in the area ATs and how could they be used to plan schemes of work and assessment?" (ibid 1990)*. The idea of

enquiry geography certainly appealed, however I had difficulty in seeing how this would fit with the delivery of what I imagined to be 'regional geography' and was expecting advice on this matter.

During the statutory consultation period I had the opportunity to express these concerns at a number of meetings both locally and nationally. Not surprisingly around 800 submissions were received by the GWG highlighting various issues. The group therefore had much to deliberate in the period before submitting the Final Report and as Walford noted, "the inescapability of deadlines usually drove the group back to burning the midnight oil" (1991c, p29).

## **b. The Final Report**

The GWG published the Final Report in June 1990 and in his letter to the Secretary of State, Sir Leslie Fielding claimed that it,

"should provide the basis for the development by schools of balanced and coherent geography courses. Within the framework given, teachers will be free to organise material, select areas to be studied, and deploy appropriate methods and techniques. Our proposals are designed to make the best use of teacher's ability and enthusiasm. We hold strongly the view that pupils should approach geography through the study of real places, through thematic studies and through the acquisition of skills...operated in the spirit of enquiry." (DES, 1990, pvii)

The report consisted of a résumé of the Interim Report, followed by a section on the nature and aims of geography and how these could be achieved. The main section stated the ATs and PoS with an overview of geography in the curriculum and its provision for all. A brief attempt at a Key Stage 4 course was outlined with subsequent sections on mapwork, fieldwork and information technology. A short chapter on assessment followed with an airing of resource implications. The appendices provide exemplar units of work.



For Walford, the production of the Final Report was, “a little less feverish than that of the Interim Report: the kites had already been flown in the Interim Report and there had been time for consideration and adjustment” (1991c, p30). However a number of general points regarding this document are worthy of consideration.

The GWG suggested that its definition of geography as outlined in the Interim Report was well-received (DES, para. 4.3, 1990) and restated that,

“geography explores the relationship between the Earth and its peoples through the study of place, space and environment. Geographers ask the questions what and where; also how and why.” (*ibid*)

These were then translated into ten specific aims which pupils should develop. The GWG suggested that these could be achieved via,

- “a) the basic content of geography should be clearly established.
- b) place studies should be an important element...
- c) the place and status of the physical and scientific elements of geographical study should be reaffirmed...
- d) there should be greater clarity about the character and value of enquiry in the teaching and learning of geography.” (*ibid* para. 4.9)

The GWG continued with its mixed economy of ATs so as, “to ensure the balance which is manifest in our statement of aims is reflected in what is taught and assessed” (*ibid* para. 5.2). The ATs were changed however with a reduction to seven and more content being placed in the PoS, however strands remained to highlight progression in the thematic and skill based ATs. Both Fielding (1990) and Walford (1991a) claimed the changes were in response to the complaints received yet they rejected the basis of the claims. Although the PoS are stated in the same order as the ATs, the GWG believed that there was now a flexible approach to the design of courses and that there were possibilities of

combining the various elements in exciting and original ways (DES, 1990, para 6.6). The group also proposed a route to enquiry that reflected the scientific model and suggested this should be located in the PoS and assessed via the ATs (*ibid*).

The Final Report says very little about the SoAs although it did increase the number by 21 to 269, which perhaps contradicts the Chairman's claim that, "we have slimmed it down and put it on a Cambridge Diet" (Independent, 7.6.90). The GWG viewed the PoS as the matters, skills and processes that had to be taught in order for the pupils to achieve the ATs (DES, 1990, para 6.1). To deliver this the working group estimated that three periods in a forty period week were required (*ibid* para 6.2). The group also outlined how the levels related to the Key Stages, prescribing a narrow range that they expected the pupils to attain (*ibid* para 6.17).

Somewhat surprisingly, the chapter on assessment is the penultimate one and although there are 269 SoAs it is only two sides long, the group admitting the comments made were only modest (*ibid* para 14.2). The group viewed assessment as an "integral part of the curriculum" (*ibid*) allowing teachers to "monitor progress and decide on the next steps so as to evaluate the geographical component of the curriculum" (*ibid*). They also recognised the need for a variety of assessment techniques and argued for a single profile component with equally weighted ATs.

The Final Report came under detailed scrutiny by various interested groups as well as the statutory consultation process organised by the NCC.

In its response the Geographical Association expounded its full support for the aims, suggesting that their achievement would be successful if,

"ATs and PoS...perform distinctive and complementary functions. The number of ATs...reduced to 5. The process of undertaking geographical enquiry should permeate...more fully. The number of SoAs be...significantly reduced via a merger of the area ATs." (Geographical Association, 1990)

They further suggested that the GWG had made, "an over estimate of the amount of time available for geographical education in many schools" (*ibid* p12). In terms of assessment, "many statements may not be assessable as they stand...within AT 2 and 4...there seems to be no rationale for content selection" (*ibid* para B10).

The geography education lecturers at the Institute of Education also went public with their views. Graves *et al* suggested the ATs had a historical perspective, "reminiscent of the traditional O-level GCE syllabuses of the early 1970's, with the addition of an environment target" (Graves *et al*, 1990b, p149). They also suggested that the Skills AT should be subsumed within the other targets and were "disappointed too that the notion of geographical skills was still being perpetuated" (*ibid*). There was considerable support for the proposals regarding fieldwork, with Graves claiming the, "report does a real service to fieldwork in general but specifically through its direct mention of the different approaches to enquiry" (*ibid* p151).

At the same time I wrote a seven-page reflection of my own views regarding the Final Report. The following were my main areas of concern:

- *"the separation of Chapter 4 regarding aims from the rest of the document;*
- *the general traditional approach taken throughout the document particularly with reference to the study of place and the separation of skills and dominance of mapwork within this element;*
- *the dominance of the SoAs in terms of number particularly at Key Stage 3 and the concern that quite a number were multi layered and it was not clear what*

*depth was required e.g. G5 L5 5b. Would people teach strands in the separate SoAs and as such use these to plan the schemes of work?*

- the amount of content within the PoS that has to be covered and the time needed to do this;*
- the number of ATs present - would it not be better to subsume them into the thematic ATs?*
- how progression would be achieved particularly through the area ATs;*
- how the document would be assessed - the assumption that ten distinct levels exist within geography and that knowledge could be classified in this way. The frequency of assessment if every SoAs has to be covered will be difficult to manage.*
- when should planning start?*
- what would be the effect on the less able students, would failure be entrenched?" (Personal diary, 28.12.90)*

Generally there was little I was supportive of, although the move to one profile component when reporting was appreciated. I felt the document was strongest in the section on Geography for all. I was concerned, however, that the freedom to plan was restricted, even though teachers had to write schemes of work, the selection of case studies appeared to be decided in the area ATs. I wondered as to whether the whole planning process would be similar to my experience of GCSE implementation - poorly informed, problematic cascade training?

### **c. NCC**

The NCC was the body responsible for undertaking the statutory consultation of the Final Report. In his letter to Duncan Graham, NCC Chairman, the Secretary of State, John MacGregor, outlined the general issues the council should focus on when tendering its advice. These were threefold; practicability, level and coverage. After conducting the consultation, the NCC studied the 348 responses and 41 letters and presented within twenty-five days, "clear

recommendations in a form which could be put into draft Orders" (NCC, 1990, p7).

In dealing with practicality the Council recommended merging the area based ATs to form a single AT, Knowledge and Understanding of Places, so as to reduce assessment overload and SoAs to 211. The professional officer suggested that,

*"the NCC task group discussed a variety of AT models. The 5 AT model was chosen as this one includes all aspects that form geography, that is, place, physical, human and skills...consideration of the different AT models required careful analysis of the SoAs, this leading to a merger of the number of SoAs and transfer of those relating specifically to named places to the PoS."* (Professional Officer, 1991, personal communication)

However, the Council recognised that, "the importance of knowledge and understanding about places cannot be underestimated" (NCC, 1990, para 3.6) and gave this AT triple weighting in the profile component,

*"the first point to be made is that the statutory requirement regarding place is a minimum...a content free AT2 on the basis of 'for a place studied' could have been developed, however places have to be Key Stage related and stipulated in the PoS... The working group's report had three ATs based on place and NCC wished to ensure that the weighting given to this element was retained and in a SAT model the only way to do this was to increase the profile component of AT2."* (Professional Officer, 1991, personal communication)

The NCC also considered the actual places to be studied, rejecting the Key Stage list approach and linking countries to a specific or range of levels, the rationale for choice included population and contrasting economic status (NCC, 1990 para 3.15). The three thematic ATs were retained as they formed distinct

areas of geography although they acknowledged that teachers might integrate them within their schemes of work (*ibid*).

To overcome the PoS problem the NCC proposed that there should be “sections for pupils working towards each level” (*ibid para 3.10*) as they entered each Key Stage at different levels and so should not repeat work from an earlier stage. When questioned as to whether the similarity of PoS and SoAs weakened the former, the professional officer replied,

*“first to make PoS more user friendly, teaching and learning strategies could have been included, the Geographical Association response is an example of this type of ‘how to do it’ package. However, the statutory requirements do not allow for this approach. Second, if a Key Stage approach had been adopted the pupils would have to study everything even though some would not achieve certain levels. At Key Stage 4 this would require a vast amount of work, but by following a level approach, pupils do not have to cover all the ATs for example level 9 and 10 skills. Thus by writing the PoS in this way there is an inbuilt provision catering for pupils of different abilities.”* (1991, personal communication)

According to the council progression is built into this model as,

*“the study of a small area to the study of regions and whole countries; understanding about their own environment to understanding about areas outside their direct experience; a study of simple issues to a study of complex issues; observing features to explaining them.”* (NCC, 1990, para 3.32)

The professional officer suggested that the Council supported the idea of progression outlined in the Final Report,

*“progression is provided through the level statements and in the strands, although these are not statutory. However, the levels are not learning objectives*

*and there are stages between two levels which allow for progression.” (1991, personal communication)*

To assist with progression the SoAs were modified and reduced in number, those concerned with how geography should be taught were transferred to the PoS. The Council also modified the command words claiming this helped with clarity and progression (NCC, 1990, para 3.34/35).

In response to the consultation the NCC placed enquiry in AT1, however, the Professional Officer suggested that, *“enquiry is a process and should be used to assess the SoAs rather than being assessed in its own right”* (Professional Officer, 1991, personal communication).

Interestingly there were only five questions about assessment on the response form from the NCC. Much criticism related to the nature of the SoAs, although confused with some suggesting they were too specific yet others claiming that they needed to be much more generic,

*“to provide access for youngsters at different levels of attainment the ATs have to be general. The problem of this is that there would be hundreds of strands, for example, symbols, and we have to be practical, one can only deal with and record a certain number of SoAs; therefore they must be generic and broad in their scope.”* (Daugherty, 1990, personal communication)

NCC had been requested to consult with SEAC regarding assessment. However, the NCC appear not to have commented on this and asked why the Council had only taken limited notice of the advice, the Professional Officer was somewhat vague,

*“the NCC has close links with SEAC and they had a role to play in the formulation of the document as they were one of the groups consulted. The NCC task group had to consider the replies from all those consulted and*

*depending on the level of response made changes to the document although there were no specific criteria for doing this and the NCC can take an independent view. Thus, it is the responsibility of the NCC to develop PoS, ATs and SoAs and SEAC's to advise on the assessment issues. In the consultation, SEAC are only one group of respondents and part of their advice was accepted and part not accepted. One could argue that if all of SEAC's advice had been taken on board this would have led to an assessment dominated curriculum. SEAC's role is now to produce the assessment order relating to the profile components on the basis of the statutory Orders.” (1991, personal communication)*

A member of SEAC, subsequently interviewed suggested,

*“some of the SEAC recommendations were accepted by NCC e.g. assessment of enquiry...but the main point of SEAC's advice - fundamental restructuring of the ATs and consequential rewriting of the PoS has not been accepted by the NCC.” (Daugherty, 1991, personal communication)*

The NCC's recommendations for Key Stage 4 were forthright. They were concerned to cover the whole ability range and proposed the “study of AT1, a reduced number of locations in AT2 and two strands of AT3, 4 and 5” (NCC, 1991, para 3.47). To achieve this NCC recommended that all pupils should study geography to GCSE as either a full or combined course, the latter being created through two discrete ATs from each subject and a linking one (*ibid*).

In the press Duncan Graham claimed the main changes made by the Council were no more than “fine tuning” (TES, 23.11.90) and they would make geography “more readily practicable in schools” (Education 2.11.90) as well as making “assessment easier” (NCC Bulletin February 1991). In a later publication however he hints at the influence of the Secretary of State in deciding the tone of the document (Graham, 1993, p72). In fact the Council produced three reports based on 3, 5 and 7 ATs for submission to John MacGregor and whilst



the Council was in favour of the 3 AT model it was only politically acceptable to adopt a change to 5 ATs (*ibid*). For Graham, "the message was constant: knowledge first and knowledge last" (*ibid*).

Most of the commentators suggested that "geography teachers look certain to welcome the latest advice to ministers which aims to simplify teaching and testing plans for their subject" (TES, 23.2.90). Caroline Lees, writing in the Sunday Times, claimed that Rex Walford said "it would reverse the trend of the 1970's and 1980's when teachers were more concerned with how they taught rather than what they taught" (18.11.90). Whereas Hewitt suggested the report should appeal to the majority of teachers but was somewhat more tentative on the assessment proposals and what he saw as a priority given to economic geography (Teaching Geography, 1991).

In contrast, my diary of the time reflects that I had difficulty in coming to terms with the report. Initially I found it, *"badly constructed and of confused order and unlike the Final Report, it lacks substance. It deals with the responses in a pedestrian fashion and some of the arguments are simplistic"* (Personal diary, 30.12.90). In fact I had three separate attempts at reading the document and came up with a host of questions relating to why certain changes had been made, these were subsequently used in the interview I had with the Professional Officer. Essentially I did not wish to work from the document, it was not user friendly and lacked necessary background data from which to construct a teaching syllabus.

Overall, it was difficult to gauge the general view of the Council's report as it was not subject to a consultation process but passed straight to the new Secretary of State, Kenneth Clarke, for formulation into draft Orders.

## **2. Passing into law: the Orders**

Clarke received the NCC report only six days into his term as Secretary of State and had no discussion with the Council before publishing the draft Orders for statutory consultation on January 11th 1991.

The letter accompanying the Orders clarified the situation to date, summarised the changes made and explained the specific areas where comments were welcome, the consultation period being one month. With regard to the changes,

“the Secretary of State has for the most part accepted the NCC’s recommendations in respect of the attainment targets and programmes of study. However, he considers that the attainment targets should emphasise more strongly knowledge and understanding of aspects of geography and put less emphasis on skills which, however desirable, are not particular to geography and less emphasis on the assessment of pupil’s exploration of attitudes and values. He also considers that, in primary schools, the number of different places to be studied should be reduced. Some other minor changes have been made.” (DES/ Chamier, 1991b, para 4)

Considering the short time limit, the response to the draft Order was substantial with numerous articles appearing in the press. Although the consultation requested comments on the PoS, Key Stage 4 and the specific re-drafting of the documents, it was the Secretary of State’s own views on the role of enquiry and values that caused at least as much discussion.

The PoS presented in the Order used the same framework as the NCC. The Geographical Association was so concerned about this that they produced an alternative redrafted version as part of their response (Geographical Association, 1991, Paper C). In his covering letter the President, Bryan Coates, explained the Association, “wish to register the extreme concern of our members about the manageability and accessibility of the system which

presents programmes of study in a level related manner" (Geographical Association, 1991). The Association were concerned on a number of fronts, the first being the unmanageability of the PoS in classes with a range of abilities. This would pose a problem in that teachers would have to find a common topic around which to structure work. The PoS were also criticised as they did not perform a distinctive function but only repeated the SoAs and as such were difficult to use in course construction. They also argued that SATs would be so narrowly focused as to only be appropriate to a few within each class and hence would limit achievement. Finally by not stressing an enquiry approach and being divided into five sections the PoS fail to enhance pupil's knowledge and understanding and may lead to an inhibiting structured teaching and learning process (Geographical Association, 1991, Paper B).

The response from my own local education authority on level related PoS noted, "that while it is necessary to relate skills, places and themes to levels the general format adopted in the draft Order is extremely complex" (Kent County Council, 1991, p5). As a solution to this the LEA proposed that specific levels should relate to Key Stages, for example, level 5 and 6 to Key Stage 3 (*ibid*), this being similar to the GWG's initial submission and at odds with the Geographical Association.

The proposed AT1 Geographical Skills also drew much comment particularly with reference to skills and enquiry. An editorial in Teaching Geography suggested that, "the removal of enquiry skills from AT1 seriously weakened the position of one of the main developments in geography teaching in the past two decades" (Boardman, 1991a, p50). Rawling responded to the Secretary of State's view with a sharply worded column in the Times Educational Supplement. She claimed that the development of geography into a rigorous and challenging subject during the past twenty-five years was, in part, due to the use of active skills in the classroom. "Without them geography is an arid lifeless

subject making few demands on its learners and providing little of transferable value in the real world" (TES, 25.1.91).

Both the Geographical Association and my LEA commented on the removal of the general intellectual skills from AT1, highlighting inconsistency in the situation across the National Curriculum where both science and technology contained skills in both the PoS and ATs.

The issue of attitudes and values was also given considerable airing. A TES editorial entitled 'Keeping the issues out of geography' suggested that "the rationale for these changes is as unclear as the standing now of the NCC's advice on environment and citizenship cross-curricular themes" (TES, 18.1.91). Further,

"the National Curriculum needs to avoid tendentiousness. But Mr Clarke's attempts to eradicate human interests and social conflict is in itself tendentious. He turns his back on the role of schools in developing children's ability to take part in decision making in a democracy. The impact of people's attitudes and expectations is no less a geographical factor than the erosive effect of water on rock or the influence of climate and transport on trade. It is part of what distinguishes geography from the sciences and from the simplistic determination Mr Clarke seems to want it to become." (*ibid*)

Rawling added,

"knowledge and understanding cannot be separated from attitudes and values...unless issues involving a range of views and opinions are opened up in the classroom, pupils may find few opportunities to clarify their own values and to develop their own convictions. This really cannot be what the Government wants" (TES 25.1.91)

The geography education lecturers at the Institute of Education were more blunt,

“the omission of a crucial variable (issues) in understanding space, place and environments - geography - is not only nonsense, it is profoundly anti intellectual and anti educational.” (Independent, 24.1.91)

While Boardman claimed,

“many issues in human and environmental geography simply cannot be properly understood without examining the influence of the value, attitudes and opinions of different groups of people.” (Teaching Geography, 1991, p50)

Meanwhile the Geographical Association used evidence from an address by Sir Keith Joseph who stated,

“is it not part of the professional responsibility to ensure that alternative views are presented and that pupils are encouraged to reach conclusions recognising that more than one answer may be possible, on the basis of evidence which they themselves have analysed and evaluated.” (Geographical Association, 1991, pp2-3)

The Association further suggested that the Secretary of State's actions,

“may be the result of a misunderstanding about the role of attitudes and values clarification in geographical studies...to disregard these geographical factors could make the study meaningless and, if perpetuated in the National Curriculum, will deny our young people access to skills, attitudes and knowledge require by any citizen.” (*ibid*)

Underlying all these concerns but rarely explicitly stated was the uneasiness of how the draft Order was to be assessed. Once again the Geographical Association was most forthright in its criticism,

"the assessment of pupil's achievement will be impracticable given the relationship between attainment targets and programmes of study in the draft Order. A Standard Assessment Task focused on one topic or place will be inappropriate for all but a small number of any given class of pupils, limiting their possible achievements to a narrow range of levels. The SAT developers will find this an intractable problem whilst...the classroom management issues will be overwhelming." (*ibid*)

My own involvement in the consultation process included attending a local meeting which formed part of the Kent LEA response. My major concern was the emphasis stressed on place knowledge and whether this was the only element which made geography a distinctive subject. I agreed with Clarke regarding the position on secondary sources and enquiry, however felt the latter should underpin the rest of the document as the desired approach to delivering the subject. I could not understand his concern over attitudes and values in that in geography no one item is studied in isolation and thus, how could a subject involving people be value free - this was an interesting perspective from a politician! The reduction in the number of SoAs was welcomed as it would ease the burden of assessment but fifty-five statements in the skills AT seemed excessive. But again my main problem was how to develop a teaching course from PoS that were level related and written like SoAs.

Within thirty-nine days of the closure of the consultation period, the Statutory Order for Geography in the National Curriculum was laid before Parliament on 25th March 1991. The number of ATs remained at 5 with a slight increase in the SoAs to 183. However the level related PoS outlined in the draft Orders had been changed considerably. Clarke suggested that the publication of these curriculum documents would ensure that pupils would follow sensible and comprehensive courses of study in both history and geography (TES, 29.3.91). With specific reference to geography he,

“was not persuaded by those who argued that greater emphasis should be placed on the study of people's views and attitudes on geographical topics. I recognise that geographical lessons will deal with conflicting opinions and attitudes on a number of questions, especially those concerned with human and environmental geography. I am not opposed to pupils forming their own opinions but I want their opinions soundly based.” (Times, 26.3.91)

Regarding skills he continued that these are, “required by the programmes of study but I do not consider it essential for them to be assessed separately in geography” (*ibid*).

The editorial of the TES did not quite see the Orders in the same light as the Secretary of State,

“what is truly disturbing about the Statutory Order is the way in which they embody the world view - complete with prejudices and political anxieties of just one man... The Statutory Order appears to reassert the bluff credo that ‘geography is about maps and history about chaps’.” (TES, 29.3.91)

For the new President of the Geographical Association the Order represented,

“a basic requirement in terms of geographical knowledge and skills to be developed at each Key Stage, but that teachers can and should build on the basic requirements by building on existing good practice in their schools and by highlighting new opportunities which the National Curriculum provides.” (Rawling, 1991b, p130)

While Boardman was still concerned about the PoS as they,

“still include additional content for the higher level of attainment at each Key Stage, for example, level 7 in Key Stage 3. The Order thus blurs the distinction

between what pupils are to be taught during each Key Stage and what they are expected to have achieved by the end of each Key Stage.” (1991b, p98)

Morris with a little more time to reflect is withering in his criticism laying the blame firmly with the GWG and HMI and suggests that,

“breadth and balance are denied by curriculum overload and the bias of the content focus. Relevance is made obscure by overtight prescriptiveness and the use of a paradigm that fragments geographical knowledge. Provision for differentiation, along with progression and continuity, has major conceptual flaws shown up by the requirements for assessment.” (1992, p75)

He concludes,

“the Statutory Orders for geography would seem ripe for the sort of rewrite imposed upon those for science and mathematics...whatever the case, an unquestioning implementation of the Orders is not enough to ensure a high quality education. There is a real need to undertake a careful and critical appraisal of them.” (*ibid* pp84-85)

Notwithstanding Morris’s criticisms, the focus for those involved in geography education changed from one of reaction to various reports to the urgent business of curriculum planning as only five months remained before the teaching of the National Curriculum commenced.

### **3. Implementing the Order and beyond**

To assist curriculum planning the NCC published the non-statutory guidance (NSG) in May 1991. A large section summarises Geography in the National Curriculum followed by advice on planning (NCC, 1991b). Boardman questioned



the reason for the first section hinting that it may have replaced “more interesting material included in the draft version” (1991c, p146).

The second section consisted of short pieces on Key Stage planning and simple example of units of work for Key Stage 3. A brief consideration of progression and curriculum content followed preceding longer sections on cross-curricular links and themes. Two units of work are presented but lack commentary and a time element, one is for Key Stage 4 which was not being implemented at the time. The rest of the document covered teaching methods, fieldwork, meeting individual pupils’ needs, assessment and recording. The final section provided a thumbnail sketch for teachers of Key Stage 1 and 2.

This brief outline corroborates Boardman’s claim that the NSG, “is a disappointing document. It offers limited advice for teachers of Key Stage 3 and is noticeable for what it omits as much as for what it contains” (*ibid*).

In May the NSG for teachers in Wales was published. The Welsh guidance commenced with fundamental questions such as ‘What is Geography?’ and ‘Why teach Geography?’ (CCW, 1991, p4). This was followed by a concise unit on planning which used a hierarchical framework to explain the process, with both primary geography and Key Stage 3 being covered. Various issues that underpin the planning process were then considered including differentiation, values, assessment and enquiry amongst others. For Boardman, the Welsh NSG, “shines like a beacon... Above all it is practical advice, doubtless because primary and secondary teachers and advisers were involved in writing it” (1991c, p146).

## Conclusion

The process from conception to a statutory curriculum took less than three years and involved many thousands of hours of discussion and debate. It is perhaps therefore not surprising that there was disagreement between the different parties involved. For Graham, the process of developing history and geography showed

“that subject based working groups were getting out of hand... By this time there was probably sufficient knowledge of how the system worked for specific guidance on attainment targets at least to have been drafted for the working groups and for much more precise remits” (1993, p74).

Even more however, Graham was concerned about the role of ministers in the process,

“it will not be possible to lay down clear dividing lines, attainment targets and programmes of study are legitimate areas for politicians in the sense that they are after all part of the law of the land, but there is a need for sensitivity all round when their views conflict with sound educational considerations. The question of detailed lessons and how they should be taught is not, I believe, one for ministerial intervention” (*ibid*).

Interestingly, although perhaps not a surprise, the one major group rarely considered during the discussions surrounding the National Curriculum and geography in particular was the pupils. Little reference was made to their experiences and the GWG consciously made a decision, "against undertaking a substantial programme of visits" (DES, 1990, p1). Thus the research undertaken on pupils' experiences of geography it seems had little impact on the development of GNC and it is a review of this area that the next chapter considers.

## **CHAPTER THREE**

### **LEARNING AND THE GEOGRAPHY CURRICULUM: A RESEARCH REVIEW OF THE PUPILS' PERSPECTIVE**

#### **Introduction**

This chapter presents a brief historical résumé of research in geographical education. This is followed by a review of the most recent research into the views and role of pupils in geography, its learning and GNC. The first section considers pupils and their attitudes towards geography or elements of the subject. The second part reviews the detailed and complex research into pupils' learning of geography. Finally, consideration of the research on GNC in schools is presented. Although the present research focuses on Key Stage 3, ages 11-14, the review that follows will refer to research undertaken in the 5-16 age group, the whole National Curriculum cohort.

A number of major reviews of research in geographical education have been undertaken in the United Kingdom (Scarfe, 1949; Long, 1964; Naish, 1972; Corney 1982), the USA (Saveland and Pannell, 1978) and Belgium (Verhetsel, 1987). Each of the authors attempted to classify the studies reviewed in different ways so as to provide a definitive picture of research at the time.

Scarfe's (1949) threefold classification included pupils' attitudes towards geography and the learning of the subject. He reported a number of large scale surveys which indicated that boys preferred geography to girls and that the

human interest and a practical pictorial approach was most favoured (Fairgrieve, 1926; Swainson, 1939).

Long (1964) discovered five research categories including a pupil attitudinal set. The majority of the research she reported used either large scale survey data or experimental and control groups who were exposed to the research instrument and the results measured and compared. In the pupil interest and attitude subset she identified six studies which specifically related to pupil views of geography (e.g. Tierney, 1960).

Naish (1972) confirmed the dominance of survey and experimental approaches but identified eight different divisions, two related to pupils, interests and attitudes and children's thinking. By the 1980's Corney (1982) suggested that the research base had widened since Naish's review. He proposed a twelvefold classification, a sub-set of which was related to pupil development. Of the 115 studies reported by Corney (*ibid*), 40% used a survey or experimental methodology but 37% of the studies failed to report the approach used. For Lidstone, except for Scarfe and Corney,

"the main emphasis of each of the analyses of research in geographical education appears to have been on the focus of the investigations, rather than on the methods of the research adopted, the purpose of the research or the audience for which the results were intended." (Lidstone, 1988, p277)

In his review of research in geographical education Lidstone was critical of much of what had gone before as it, "has not made major contributions to the improvement of either geography as taught in schools or of education systems in general" (*ibid*).

He went on to suggest that a way to overcome such a problem would be to involve many more teachers in research either working with academics or as teacher-researchers in their own right.

Hebden and Fyfe (1988) reviewed over one hundred studies between 1981-85, over half of which were concerned with teaching methods with emphasis on a quantitative methodology. Much of this area focused on using microcomputers and their application. Fieldwork and the use of audio-visual techniques were also popular areas for investigation. Other research themes reflected previous ones such as curriculum perspectives. In the period the authors only record four studies from teacher-researchers, three of which were published in *Teaching Geography*.

In 1989 the geography department at the Institute of Education in London produced a review of the MA dissertations written between 1968-1988. This detailed publication considered the main themes permeating the dissertations and presented them in four chapters. This review differed from those outlined above in that the majority of the studies remained unpublished and were undertaken by practising teachers and covered a vast range of interests from historical studies through values education to new technologies. Since this publication Slater (1994, 1995, 1996, 1997) has edited in-depth reviews of a number of dissertations to illustrate developments within the field. These monographs allow masters and doctoral students from the Institute of Education wider audiences for their work, to date twelve studies have been published ranging from changing university perspectives through GNC to international curriculum developments.

As this introduction explicates there has been significant research undertaken in the field of geographical education and the scope of the investigations has increased over time particularly since teachers have become more directly involved. The next two sections of this chapter will concentrate on the research

that has specifically involved pupils and which relates directly to geography and its learning. The first section will consider the research undertaken that purports to focus on geography and its various elements and the meaning this has for pupils.

### **Geography and its meaning**

Very few studies have actually focussed on the meaning of geography as seen from the younger person's perspective, as opposed to university students (Gerber, 1992). Those that exist have concentrated on the purpose of school geography or the factors influencing the choice of subject for high school examination.

Long's (1971) Presidential Address to the Geographical Association reported her research on the interests of children in school geography. She surveyed 1800 pupils from years 8 to 10 in 18 schools of varying educational character using a bi-polar semantic differential scale to record the pupils' views regarding 25 geographical activities. Her aim was to discover which activity pupils favoured. The top four were groupwork, individual project work, graph drawing and local fieldwork. Essay writing and copying were unpopular throughout the cohort and OS mapwork particularly with girls. Long suggested that,

"we must take stock of our teaching to gain the maximum advantage from the children's interests...I am suggesting that we make as interesting as possible to them the work we select as being educationally valuable and worthwhile." (*ibid*)

Thus back in 1970 a leading geographer of the day argued that to listen to pupils' views was a valid and worthwhile task.

A number of pupil attitudinal studies have been undertaken as MA theses at the Institute of Education. Bramwell (1984) reported gender differences in pupil attitudes to geography and its content and learning in the lower secondary school. Seven schools (co-educational and single sex) were sampled via questionnaires administered to 199 boys and 218 girls in year 10. She investigated a range of elements including the topics studied, learning activities experienced, teacher gender, option choice, experiences and likes/dislikes. Bramwell however focussed on the gender differences in attitude, rather than what these elements meant to the pupils, analysing the results statistically. She discovered that girls had a slight preference for project work and creative writing, whilst boys preferred OS mapwork. Overall she concluded that school geography was neither male nor female oriented. However she indicated that boys preferred different learning activities to girls which in turn affected the preference for different topics. Bramwell also noted that all pupils enjoyed active learning activities rather more than passive ones such as writing. Unfortunately, she did not extend the research into the area of learning with the aim of discovering how effective the activities and topics experienced by the pupils were in improving learning in geography.

Meanwhile in the same year Govan (1984) was investigating the relationship between school qualifications and employment with particular reference to geography. Working in a London comprehensive he used a questionnaire to elicit pupil attitudes to geography at 11,14 and 16 years. He discovered on entry that pupils generally viewed the subject in a good light. By the age of fourteen pupils were still positive viewing geography as being useful in a general sense, but they were becoming concerned about examinations. When reaching sixteen those pupils studying the subject had a slightly tarnished view, Govan suggesting that this was part of a general feeling about education. There was a concern however over the perceived lack of career use of geography. Unfortunately Govan did not investigate these tentative findings further so as to explain exactly what views the pupils held and why.

Roke's (1985) research enquired into the relative value of curriculum subjects and geography in particular. Working in an Outer London Borough, he used a questionnaire survey with the top set in mathematics in three schools to obtain pupil opinions regarding the value of subjects. Out of the 15 questions set only one was solely focused on geography, this requiring a qualitative response to the good and bad aspects of the subject. Much of his discussion concerned subject choice in general, however he did record some views of geography. "Geography tells us about other places and other countries" (1985, p72) was a common response, as was the opinion that the subject aided environmental understanding and involved mapwork. The major criticism of the subject was its lack of vocational relevance.

In 1986, Moseley's study was one of the first MA's to question the purpose and value of secondary school geography *per se*. He undertook his research in a state comprehensive and independent school using a questionnaire to survey both pupil and parent attitudes. Analysing responses from 166 pupils and 83 parents (from the independent school only) he presented the following results:

- Pupils and parents saw the main aim of geography as providing knowledge of the world and its peoples.
- Map reading is an integral part of the subject.
- Parents saw the subject as a deliverer of environmental awareness.
- Pupils saw it as a vehicle to pass an exam.
- Graphicacy was perceived as only moderately important.
- Geographical skills and cognitive process development were seen as important particularly by parents, the development of the affective domain less so.
- The study of geography related to intrinsic aims - it is worth studying for its own sake.
- Emphasis should be on the economic and environmental aspects of the subject rather than the political.



He then related the findings to the status of the subject in his own school suggesting the benefits of a departmental evaluation particularly taking into account the different standpoints of teachers, pupils and parents. Communication of the aims, objectives and strategies as well as content to both pupils and parents would be beneficial and not increase the gap between the specialist and lay person.

Reporting on Anikweze's (1982) research into factors effecting teaching and learning undertaken in Nigeria, Okpala (1988) noted that pupil attitudes were to be taken into consideration as one of twelve questions investigated. However, again the attitudes being researched focussed on gender and place of habitation and their effect on pupil's perception of geography. Although discovering that females had a more positive attitude to geography compared to males and that urban based pupils were also more positive towards the subject, there is no discussion as to the meaning of these results and how they could be used in improving learning. Okpala is however critical of some of the methodology used.

Dowgill's (1989) case study of the second cohort of GCSE geography highlights a number of findings both indirectly and directly related to pupils' opinions. Using a questionnaire to obtain the views of 70 year 11 pupils and then diaries with his own year 10 class, he discovered that geography had three major meanings for the informants. First, pupils thought they should have been learning about countries in detail rather than specific aspects at specific locations. Second, that physical geography had a clear and important role within the subject and third, that fieldwork was an effective way to learn the material. Pupils also commented on the workload, particularly with regard to coursework, inherent within the subject when compared to others. This possibly due to the way the school interpreted the syllabus at the time. However, pupils also appreciated coursework as it took pressure off the final examination. An interesting observation made by some of the pupils' referred to the difference in experience

between GCSE and the preceding three years, particularly in terms of coverage, structure and volume of work. The introduction of GNC Dowgill believed would address indirectly some of these concerns.

Dowgill (*ibid*) also reported that how, through the research process, he came to realise how little he 'knew' the pupils. Also that his pupils actually viewed themselves as consumers, demanding a high level of service and wanting to be treated as individuals. However, he failed to present any suggestions as to how this could be achieved in the context of GCSE.

More recently two studies have reported on pupil attitudes, however once again they are quite specific in their respective focus. Ballantyne (1996) investigated the factors affecting student choice of geography as a secondary school subject in Queensland. His aim was to discover the factors affecting choice, what pupils liked and disliked about the subject and whether it was educationally valuable. To do this two questionnaires were designed. The first was distributed to 169 pupils studying geography in five rural and five urban schools. The second distributed to pupils in the same schools but who were not studying geography. Students choosing geography did so because of personal interest, perceived relevance for a career and past achievement in the subject. Those not studying geography offered little interest in the subject, preference for other subjects and lack of career relevance as the main reasons. Both cohorts liked fieldwork and learning about society and places the most. The least liked aspect of the subject was that of assessment in particular by those who studied the subject. Gender differences were again only slight, with only two items showing any significant variation. Ballantyne suggests that to make the subject more attractive, its general interest value and vocational relevance need developing.

Murray (1996) in contrast presented a case study of pupil's perception of GCSE coursework. He sampled two schools using questionnaire and informal interviews. His findings were somewhat vague and presented a wide range of

opinion. Pupils discussed issues of organisation, workload and time management, and he discovered similar findings to those reported by Dowgill (1989) from the first cohort of GCSE pupils. Perhaps more interestingly, he reported that pupils were unaware of the changes to syllabuses which would effect their education.

Thus, in the eight studies reviewed none of the researchers asked the fundamental question of the pupils - what is geography? Although questions appertaining to the purpose of the subject and comments regarding meaning were present. This suggests that those who teach geography take the meaning of the subject as held by the pupils as read. Yet as much academic discussion suggests, the meaning of geography is not self-evident (Livingstone, 1992; Holt-Jensen, 1980). In fact considerable discussion defining the nature and aims of school geography was part of the process involved in the formulation of the Interim Report (DES, 1989). A number of commentators have also suggested that in planning the teaching and learning of geography, the aims of the subject should be the starting point (Graves, 1979; Hacking, 1992). Hence it would seem logical to try and discover the meaning geography has for pupils (as well as their experience of the subject), as with this knowledge the teacher/ researcher has an anchor point from which to plan. Another important area for teachers to be familiar with is recent developments in pupils' learning in geography and it is to this that the discussion now turns.

### **Learning in geography**

During the last twenty years learning in geography has become a popular theme in terms of school-based research. Various aspects of learning have been focussed on and to ease the review process I have categorised these as concept development, spatial awareness, place perception, environmental awareness, language and teaching and learning.

Much of the research reviewed would fall in more than one of these categories, concepts for example are part of all the other groupings. However a decision had to be made and it is hoped the reader would appreciate the complexity of categorisation as outlined at the start of this chapter.

What follows below is a brief résumé of each of these areas to provide a flavour of the work that has been completed during the last twenty years. As the focus is learning, pupils have played a central role in all of the following studies.

Graves (1984) undertook a review of conceptualization and linked this to language development and environmental experience. He linked concept development with the work of Piaget, Bruner and Gagne. As with many other authors he related his discussion to the seminal work of Lunnon (1969) who had completed the first specific work on concepts and geography. Lunnon used ten common concepts with 140 children aged 5-12 in an attempt to discover how the development of these related to mental and chronological age and socio-economic status. To discern any pattern he used verbal and picture identification tests. The results showed that concept growth is gradual but fastest between the ages of 5-8 and related to the development of language and chronological age rather than mental age. Higher economic status pupils did better in both tests, yet all pupils performed better in the pictorial test suggesting they grasp concepts before they have the ability to express them. Milburn (1972) conducted a similar study with 500 8-11 year old pupils using common terms garnered from textbooks. He discovered that there was no rationale for the entry of a term at any given stage and that by age 11, only 29.7% of the cohort got them correct. Since these large scale surveys, research has expanded in terms of the age range (Balderstone, 1994; Gerber 1996) but has become more specific in the concept acquirement (Wilson and Goodwin, 1981; Harwood and Jackson, 1993). Both Wilson (*ibid*) and Gerber (*ibid*) reported that once teachers know what concepts the pupils' hold they can make learning more personal and can attempt to change these if they are incorrect. Harwood

and Jackson (*ibid*) discovered that in assessing nine common landscape features the use of various stimuli was important as only 36% of their cohort recognised the features via all stimuli and 25% failed with basic understanding in any test.

More recently, Platten (1995a, 1995b) has reported young children's understanding of geographical terms as defined by GNC Key Stage 1. Fifty pupils in three primary schools were taught geography via topic work. Platten used interviews to talk about words relating to the thirty concepts identified (these were concrete/ abstract and vernacular/ technical) and graded children based on their cumulative understanding. She found that on average 79% of terms were recognised and 65% of the pupils had some understanding, with 85% of the concepts fitting the concrete/ vernacular category but only 20% in the technical/ abstract group. Specific terms the pupils found difficult included valley and country, both from the technical/ abstract group. She concluded that understanding was generally restricted as pupils had limited experience, language difficulties and could not relate television images to the concepts. The implications for teaching were many: pupils should be given the opportunity to talk and be assessed orally; direct experience is important; care should be taken by staff in use of language and stimuli; perfect definitions should not be forced on children as they need time to reflect and revise their ideas. Platten undertook a second interview two years later when GNC Key Stage 1 had been completed. This sample was of twenty pupils, teacher selected with a gender and ability balance. An average 81% of terms were recognised with 69% of the pupils showing some conceptual understanding, an increase of 4%. Platten noted a slight increase in the recognition of abstract/ technical terms but overall concluded that the implementation of GNC had no significant effect on concept understanding.

The area of graphicacy (defined as the use and understanding of visual information) has been fruitful in terms of geographical educational research with

much of the work having its grounding in Lynch's 1960 study. In geography the research has mainly focused on the understanding of maps, however, aerial photographs and Landsat imagery have also been investigated. A number of overviews of graphicacy have been written (Catling, 1979; Boardman, 1983) and cross-cultural research reported (Gerber and Lidstone, 1988).

Specific elements of mapwork have been researched such as distance (Bland, 1983), contours (Angier, 1989), size (Weigand and Stiell, 1996) and freehand drawing (Weigand, 1995). Tierney (1985) tested five spatial concepts with 9-15 year olds through the drawing of mental maps. The findings suggested that there are improvements with age, the type of map effects performance and pupils move from an egocentric to Euclidean view of the world. Much of the research has also noted that boys out perform girls (Boardman, 1989; Rikkinen, 1995) but fails to suggest how this may be overcome. Batchelor (1987) noted the problem of linking aerial photographs to maps and the difficulties pupils had in dealing with relief and orientation if there was more than one source of data.

A considerable number of studies have focused on children's general mapping abilities (Teck, 1988; van der Schee, 1988; Verhestel, 1994; Kwan, 1996). Teck (*ibid*) reporting research with Singaporean pupils suggested that a mapping sequence should be taught commencing with direction and orientation through location, distance and scale, symbols to contours and general map reading. Oliveira's (1984) Brazilian study preceded this with a call for a map methodology, exercises needed producing to provide the basis for map skills. Dutch research (van der Schee, 1988; Van Dijk, 1994) confirmed these findings suggesting the development of a formal map teaching programme commencing with a limited number of concepts and augmenting these over time. This was supported by Verhestel (1994), whilst Rikkinen (1995) argued for graphicacy to be taught.

Warwick (1987) asked, "how do children see pictures?" He tested 400 11-12 year old children in an urban and rural setting to discover what they saw in coloured slides. His findings showed that girls identify slightly more objects and urban children do better than their rural counterparts. He suggested that scanning pictures followed similar rules to reading and that colour played little part in searching.

Pettit (1980) and Smyth (1985) widened the research base to include Landsat imagery. Both of these carried out quite large surveys involving testing. Similar to mapwork they discovered that boys outperformed girls and that there was a link between basic intelligence and Landsat test performance. Perhaps not surprisingly they discovered that natural coloured images were better than false colour and that large-scale features were identified easier. The problem of the vertical perspective was evident with particular difficulties in linking this with scale.

A number of authors have attempted to broaden the research to include various psychological models in the development of spatial awareness. Purnell and Solman (1992) investigated the application of the cognitive load theory to learning spatial information and suggested that technical illustrations are best presented as a single entity. Whereas Weigand (1996) suggests constructivism has not yet had an impact in geography yet it can be identified in the different level of response of pupils to maps.

The general area of what could be termed environmental education has seen a growth in research during the last twenty years. Spicer (1984) in his review of the sixty-six studies into children's perception of their environment posed a number of serious methodological questions. He concluded that research in this area had, "reached a dead end, a point of no return and a frustrating impasse" (*ibid* p71). He wondered where the child was in all this research. Lee and Tan (1994) completed a second review providing a comparative picture of pupils'

knowledge and attitudes in developed and developing countries. They found consistency in the influence on children including gender, school and community concluding that environmental knowledge was poor.

Much of the research undertaken at the Institute of Education has been into environmental perception often at the local level (Simmonds, 1981; Mercer, 1985; Newman, 1985; Jones 1987). The findings indicated that individual pupils had a unique view involving a sense of identity although do not necessarily care for the environment. It was suggested that girls had a more subjective construction of the environment and that there was an identifiable gender difference in spatial activity influenced by peers and parents. More recent studies have focused on pupils' awareness of environmental issues (Karpik, 1992; Bramham, 1995; Ho, 1995; Boyes and Stanistreet, 1996). A conclusion of these was that there was an increased awareness of environmental issues based on increased knowledge with distinguishable viewpoints. Although pupils' discussed the issues frequently, action as identified in changing behaviour patterns was limited. Hartland (1992) investigated the development of environmental cognition and knowledge with primary school children and suggested that it was a gradual process. Changes were linked to intellect and maturity rather than environmental experience that should inform curriculum planning.

The study of place has always played a central role in geography and hence has been an important topic for research. Studies have varied from images of the Third World (Rupar, 1982) and specific countries (Wickert, 1981; Leigh and Snellock, 1991) through international comparisons (Kent, 1992) to the influence of place on pupils (Robertson, 1994, 1995). Rupar discovered from his cohort of 12-13 year old boys that there was a general lack of empathy for the Third World and a belief in western ideals. Stereotyping and ethnocentrism were both common (*ibid*). Wickert and Kent's studies took an international perspective, studying pupils images from a variety of countries. The former discovered that



US pupils had little real knowledge of the UK or Soviet Union, whilst UK pupils had poor map knowledge and took much imagery from television. In contrast Russian pupils produced excellent maps and wrote factually about the other countries. All three cohorts produced distorted images of the politics and crime in the other countries (Wickert, 1981). Kent's work widened the research base to ten countries and 16-17 year olds who studied geography. These pupils brainstormed their ideas on the categories of people, environment and life for the other nine countries. Kent's summary was brief identifying consistency, bias and stereotyping in the images, although he stressed this was a pilot study and wondered how it could be taken further (1992).

Weigand (1992) has produced a useful summary of the research into the knowledge and understanding of places. He suggests that the findings are often contradictory but summarises them as

- A slow development of understanding the nesting relationships of place.
- Knowledge and attitudes of places are complex and closely related.
- Likes and dislikes of places are initially idiosyncratic and then become influenced by their social contacts - the range widens with age.
- Children prefer their own country and countries most like their own.
- With increasing age they become even more nationalistic.
- Attitudes towards other countries are formed either at the same time or before knowledge is gained about the place. (*ibid* pp64-65)

Weigand's own research with 222 pupils of age 7 and 11 illustrates the developing image of the world. At seven he found that pupils could write down five or six countries although they did not understand the concept. By age eleven this had increased on average to fifteen although some pupils knew more than thirty countries (*ibid*). These findings support the previous work of Jahoda (1962) and Allison *et al* (1982). Weigand does note though that pupils are more interested in people than places, which has implications for the traditional way of approaching regional geography.

However, work by Harwood and McShane (1996) questions the statement on nested place hierarchies. Using three methods in two schools, they discovered age-related improvement, no difference in gender performance but evidence that travel improved understanding. The results justified the teaching of place hierarchy in GNC Key Stage 1.

Some recent research has taken a different tack, focusing on the influence of place on pupils. Robertson (1994, 1995) in particular has been working in this field. Her first study involved 79 adolescents in four different locations grouping photographs. Her second used multivariate methods with 210 pupils in seven schools in different communities. Robertson reports that experience of place influences thinking and decisions about environmental meaning, she suggests that spatial ability is greater in rural areas. Her findings provide some evidence of place related behaviour through visual skills, leisure and recreation and perhaps learning and study approaches. Whereas Spencer and Blades (1993) using research from the psychology of childhood show how place is, "important to children as a basis for self-identity, for social integration and civic participation...[and hence] we should consider children's place understanding in the context of their everyday activities" (p367).

As Slater has noted, "the lack of widespread awareness and sensitivity to the role of language in learning as distinct from the role of language in communication" (1989, p76) has meant that language has not had a strong research focus in geographical education.

There have, however, been studies investigating readability indicating that pupil interest in texts was determined by colour, text-illustration layout, font size and number of words on a page (Grubb, 1984; Leang, 1986).

Slater (1989) herself edited a text on language and learning in the teaching of geography. In this a number of authors considered the use of language in its

widest sense as applied to various aspects of geography. Okpala (1989) argued for the use of structured talk and questioning so as to overcome pupil misconceptions on mapwork. A further study analyses writing in the humanities and suggests that teachers need convincing of the benefits of open, collaborative and redrafting of written work (Lewis, 1989).

Language is also considered in the realm of pupils' conceptual development. Through research completed over six years using concept mapping, Ghaye and Robinson (1989) suggest that we can look beyond a pupil's knowledge of a topic to investigate and develop metacognitive skills as well as becoming self reflective practitioners.

More recently, Butt (1993) has reported on the effect of audience centered teaching on pupils' writing in geography. Working with 11-14 year olds in three schools, he had the pupils write for different audiences and analysed their pieces for geographical attainment and sense of audience. His tentative results suggest that by adopting an audience-centered approach there is an increase in discussion, questioning and values clarification by pupils. Although it is difficult to prove they are learning geography, he claims that they are learning through geography.

This reference to learning moves the discussion to the final main category of research reviewed here, that of teaching and learning. A sub-set of this aspect has focused on inquiry as a route to enhancing learning. Woodhouse (1984) argues that pupils should be taught via key skills and inquiry rather than content so as to get them to learn how to learn. Winter (1988) devised an inquiry curriculum unit based on a fictitious South African river and analysed the findings after completion of the module by twenty-six 13-15 year old pupils. He discovered that the pupils were between the concrete and formal operations stage and so were incapable of comprehensive imaginative thinking and hence, could not say whether the unit had improved the level of geographical thinking

or understanding. Klein (1995) in his report on the trials of Geographical Investigations in Global Issues (GIGI) claimed that pupils normally associated geography with dull memorization and that they enjoyed this new approach, however he presented no findings as to whether it improved learning. Neighbour's (1992) study suggested that pupil motivation and values were the main influences on deciding the effectiveness of inquiry as a route to improving metacognition.

Other researchers have focused on understanding pupils' learning in geography. Ghaye (1984) in his longitudinal study attempted to assess the development of what he termed the pupil's mindscape. He prepared a teaching unit on resources that was organised conceptually and investigated pupil responses using a variety of methods. His findings were complex but in summary are

- There were four types of discourse - conversing, eliciting, accepting and monologising.
- Pupils viewed teacher explanation as important.
- Typification of lessons was multidimensional.
- Pupils increased in ability to identify generalisations and think abstractively.
- 11 year-old pupils could account for what they do and know.
- Geographers have failed to develop a methodology and language to describe and account for pupil's developing conceptions of a body of knowledge.
- Learning in geography is a number of co-occurring developments, it is not additive but inclusive.

Robinson developed this study in her 1986 Master's degree through asking the question, to what extent have the children learnt what I taught them? Her findings pointed to pupil learning styles that were either serialist or holist, with concept acquisition based on interest, constructivism, discussion and knowing they had to learn them. Parke (1990) investigated the quality of thinking of 150

pupils using the SOLO<sup>3</sup> taxonomy. Concentrating on age and quality he suggested that there was a significant change in thinking between 14½ and 15½ years and before this pupils' functioned at the concrete operations stage. Lee (1992) questioned as to whether domain general reasoning should be taught separately from domain specific knowledge. His survey of 178 Singaporean pupils suggested that both were significant variables in solving geographical problems and thus both content and strategies should be taught. Recent work by Robertson (1996) further suggests that pupils have preferred ways of solving problems, which is not always related to how data is presented. She suggests that initially concrete modelling occurred, however when the problem is grasped, verbalisation takes over to give the correct result.

Other studies have focussed on learning styles (Phillips, 1982), initial diagnosis of pupil capability (Gerber, 1984) and groupwork (Kelly, 1995). The findings not surprisingly have been wide-ranging. Phillips discovered better on task behaviour and pupil-adult interaction in traditional lessons but more task focused interaction in progressive situations. In both, he reported a lack of

praise for the pupils plus little private attention. Gerber noted that by knowing pupil's entry levels and capabilities one could improve learning whereas Kelly suggested groupwork enhanced confidence and discussion but needed careful use of ground rules and planning.

During the last twenty years other specific aspects of geography have also been the focus for research. Conflict (White, 1983), fieldwork (Dixon, 1981) and information technology (Leonard, 1984; Jefferys, 1987; Teh and Fisher, 1995) have all been investigated from the pupil's perspective. IT however, with the

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<sup>3</sup> SOLO - the structure of observed learning outcome. This is based on the assumption that learning quality is reflected in the complexity with which the learning outcome is structured (see Biggs, J. 1988 for further discussion).

exception of CAL, has limited examples in this area of geographical education research.

A summary of the studies suggests that in geographical education, research is something that is 'done' to pupils or in Fein's (1992) terminology process-product research. Although pupils are involved in the research, often it is in the 'guinea pig' mode and the findings do not appear to help specifically those with whom the investigation was undertaken (Lidstone, 1988) or provide generalisations for teachers to follow (Fein, 1992). Thus in this empirical tradition, "research is positivistic in style and concerned with the processes of teaching and learning and the product of such processes" (Naish, 1996, p321). Over 70% of the papers in Gerber and Lidstone (1988) and Stimpson and Kwan (1990) are of this type (Fein, 1992) and he notes only three papers presented at the 1988 and 1990 International Geographical Union used interpretive methodologies (*ibid*). Yet even Fein in his call for geographical research to take a collaborative critical stance fails to mention pupils as the focus of the research endeavour and the importance of discovering their perspective.

More recently, Naish (1996) reports an ever-increasing number of teachers as taking an action research perspective and thus becoming self critical and reflective. This in turn has them asking a different set of questions, which helps raise the status and importance of the pupils in the research process. As GNC has been the major development in geography in the 5-16 age group, research into pupils' perspectives of this would appear to be an important developing area. It is this new field of research into GNC that is now considered.

### **Research on Geography in the National Curriculum**

The final section will review the research that has been undertaken into the implementation of GNC. This section focuses only on that research which

involved schools and ignores the wider philosophical debate surrounding GNC and its review by Dearing as well as advice on curriculum planning (Rawling, 1992). The discussion that follows provides a wider picture of the process of implementation that is considered in the specific context of this research in Chapter 6. It also illustrates a scenario, in which pupil involvement is again shown to be minimal, although it is this group that experiences the results of this process.

Roberts (1991,1995) has reported on the implications of GNC for schools. Her initial research carried out in 1989 and 1990 focused on the existing practice in 12 schools in four South Yorkshire LEAs with contextual data being provided by a further 85% of the secondary schools in this area. Her findings were wide ranging in terms of the perceived impact GNC would have on:

- The effect on cross phase continuity at 11 and 13 years.
- Impact on mixed ability teaching of pupils at different levels having to cover different content.
- Single subject versus combined studies approach.
- Time allocation.
- The impact of designated content on existing Key Stage 3 syllabuses.
- Concern over teaching style.
- Resources and INSET.

Her conclusion was that in South Yorkshire at least there was a large gulf between what was expected by GNC and present practice and teachers faced a considerable challenge in narrowing the gap (*ibid*).

Roberts (1995) continued her research and from data obtained was able to identify three perspectives of the curriculum as held by the Head of Department. These were curriculum as knowledge to be learnt; as a framework of ideas, skills and values; and, as a development process. From this she analysed data from three schools, one in each category, collected between 1989-1992. Her

first finding related to what the schools were trying to achieve. This varied from increasing knowledge through understanding using interpretive skills to developing transferable inquiry skills (*ibid* p197). It was through these varying frameworks that the schools read and implemented GNC. In the first year of GNC Roberts was able to compare the three schools as they each undertook a unit on settlement. Her findings suggested that the underpinning ideology of the department had a major influence on how the Orders were implemented. Teachers were teaching as they did pre-GNC and although the pupils were studying settlement, the outcomes in the three schools were different. Her concern was whether future externally imposed assessment would cause a shift in the underlying values of the departments or whether these values were so deep seated as to over-ride any proposed change.

In September 1990 the geography department at Chilwell Comprehensive decided to trial run GNC (Brown *et al*, 1991). A new Key Stage 3 course was planned which crossed AT boundaries through a combination of a thematic and regional approach. Concerns were reported in three areas, the role of levels, cross phase continuity and resources, incorporating time and training. The department also considered cross-curricular links and development of these. This research offered no solutions to the issues or explanatory account of the structures implemented rather providing other teachers with a description of one attempt to implement GNC.

1992 saw three studies on the impact of GNC implementation with the first primary school study published. Naish *et al* (1992) reported a survey that monitored how primary and middle schools were adapting their curriculum to meet the requirements of geography as a foundation subject. Data was collected during an eighteen-month period by questionnaire and interview, researchers following a standardised brief. Case studies ranged from a single school up to forty in one local authority. The key points arising were:



- Pressure on staff - time, learning a new Order and language, innovation fatigue.
- Staffing - few teachers had a geography qualification beyond O-level, co-ordinators appointed were often young, inexperienced staff, problems of continuity and progression for non geographers.
- Resources - staff, fieldwork and teaching materials.
- Planning - subject/topic dichotomy, content overload, nature and style of assessment, integration into existing curriculum.
- Whole school approaches to differentiation, progression and continuity.

The research did point out a number benefits. Geography was been taught in carefully structured topic work with clear development of knowledge and skills. Teachers were being made responsible for the subject, which led to co-operative staff work, and thus enhancing its profile within this sector. Cross phase interaction had also improved.

At the same time Whomsley (1992) reported the impact of GNC on two Hertfordshire primary schools. He claimed that the implementation had been received with reaction varying from happy acceptance through to resignation. He also reported evidence of innovation exhaustion and suggested that the geographical expertise of primary teachers had been overestimated. His somewhat critical, but unfounded, conclusion was that primary geography had nowhere to go but up.

Hertfordshire also saw a survey of its secondary, upper middle and special schools focusing on perception and reaction to GNC (Burden, 1992). The survey covered aspects of geography teaching, changes to the Key Stage 3 geography curriculum and the issues related to this. The main findings suggested that schools were using GNC as an opportunity to evaluate lower school geography. This involved either re-ordering units of work, the introduction of new ones or moving to modular courses. The view of teaching style varied

across the spectrum of collaborative inquiry to didactic approaches. Assessment, although a concern, was more rigorous than before. Issues repeated findings from elsewhere, with a lack of time and new resources, non-specialist staff and need for INSET at the forefront. Burden suggested that most teachers were positive about the developments particularly in the areas of IT, cross-curricular links and progression (*ibid* p156). However, no mention was made of the impacts the changes had on the teaching and learning as perhaps it was too early to evaluate this aspect.

In 1993 the Geographical Association reported six case studies of geography departments' plans for Key Stage 3 and a year 7 unit (Fry and Schofield, 1993). Each case study had complementary notes on departmental philosophy, strengths and weaknesses plus ideas for future planning as well as a commentary on the information presented. In summarising, Fry and Schofield spend more time discussing what they saw as future issues arising from the data than they did the cases themselves. They noted an attempt by departments to cover the whole of the PoS and the use of themes, regions and issues as a planning framework (*ibid* p31). Also concentric place progression through the key stage was evident in many schools planning. Their concerns included cross phase transfer; the use of levels when planning work, this leading they suggest to an individualised curriculum; progression and assessment and recording. Although they offer some advice to departments to plan within current policies, they pre-empt the Dearing Review by stating that GNC could not exist for long in its initial format.

Coulridge (1993) in her MA dissertation recorded the personal feelings of staff and studied the reality of implementing GNC and its impact in ten secondary schools in a Shire county. The research used 'case study' format and was undertaken seven to nine months after GNC implementation. A series of questions were used when interviewing Head of Departments for 45-90 minutes. These focused on present developments, what happened before GNC, views of

staff, the change process, problems, the theory-reality dimension and any positive outcomes from all this. In a very detailed set of findings Coulridge reported:

- 8/10 Head of Departments (HoDs) were in favour of GNC. They saw it as well balanced, specific and providing a sense of place. However, in a similar fashion to Roberts (1995) findings, there was disagreement over various elements of the Order. Some appreciated the specificity of the PoS, others preferred a vaguer, less concise approach. A number of the HoDs welcomed the strengthening of the role of geography in the school curriculum whilst others viewed the focus on places and regions as a backward step. Overwhelmingly they were critical of assessment procedures and questioned the relevance of recording all of the SoA, only three departments were using the new routines.
- The response of departments as a whole was mixed, three favoured GNC, two were against and three non-committal. The general view was that part-time staff were pessimistic.
- Six of the departments had involved all the full time staff in analysing the documents, whilst in two others this role was fulfilled by the HoD.
- Only four departments suggested they were working with a shared meaning of GNC taking a collaborative, pragmatic stance.
- In implementing GNC the picture was also mixed. Some departments started from scratch whilst others only slightly modified existing schemes of work. All departments tried to fit existing work somewhere in to the GNC so not everything had to be re-written and they could maintain existing good practice. A number were waiting for published textbooks to assist with planning.
- Five departments noted that GNC had made no change to the children and it had not changed teaching styles and hence not made any discernible improvement.

In concluding her study Coulridge noted that the major short-term impact had been time - to meet and plan, to teach and to ensure that whole ability range was being covered in the work. She found that the HoDs were not considering the long-term implications, as they were too concerned with the present, although improved learning was hinted at.

The difficulties faced in implementing GNC in a humanities faculty of a Bristol comprehensive was recorded by Hawkey (1993). She discussed the problem of the school-based versus centrally planned curriculum dialectic. Her school worked on a two week, two day timetable with humanities being taught in a 70-minute block every other day. The faculty found combining the content rich geography curriculum with history and religious education problematic and, even though keeping their humanities identity, had to move to only one integrated project each year. Assessment was also problematic, with Hawkey arguing that the formative process would be very difficult to implement due to the emphasis on content. The faculty was also concerned as to the validity of having to frequently assess SoAs and decided to use the command words at the various levels as a guide to identify standards. She concludes that,

"we currently feel largely unable to prepare students for what lies ahead, and have, therefore, felt bound to concentrate on what we, in our professional judgement, feel is valuable. At the same time, we continue to work within our interpretation of the National Curriculum framework." (*ibid* p144)

Dunkerley (1994) also reported the implementation of GNC in one school. Using a range of data collection methods, she investigated a primary school of 200 pupils, 75% for whom English was their second language. Her role however, was of external consultant so she could act as a participant-observer rather than as an insider, although she worked very closely with the staff. The curriculum consisted of 23 topics based on concepts and skills, seven of these were classed as core units the other sixteen satellite. In the research process she

discovered that there was little formal geographical ability amongst the staff. She reported that the whole staff were involved in the implementation of GNC and there was a commitment to change, however this took longer than expected. There was difficulty in integrating GNC into a concept based topic web, although it finally fit three of the increased 27 topics. The staff concerns were with the limited choice of content and the development of mapwork plus the outside influence of the media coverage and its resulting effect on morale.

Interestingly in three recent publications, aimed at geography educators, focusing on research in geography (Williams, 1996), teaching and learning (Tillbury and Williams, 1997) and the future of geography (Rawling and Daugherty, 1996) there is little, if any, discussion of the role which pupils can or do play in the subject. In fact Binns (1996), in a chapter entitled 'School geography: the key questions for discussion', fails to mention research into the teaching and learning of school geography or the importance of pupils except in ensuring the subject continues post-14. In concluding *Geography into the Twenty-First Century*, Daugherty and Rawling (1996) stress the need for an improved relationship between school and higher education and propose an agenda for discussion. They fail to place the pupil at the centre of this agenda, but Daugherty noted earlier,

"what do we know of the learning of geography beyond the understanding that each of us has accumulated from the experiences of teaching the subject? There is a paucity of empirical evidence derived from studies of how children learn geography. In the absence of such studies we fall back on our instincts as educators and on the theories which colour our thinking to supply us with the assumptions on which our curriculum plans are built." (*ibid* p211)

## Conclusion

The present research is an attempt to partially address a number of issues outlined in this chapter. Through focusing on two fundamental questions, what is geography and what is learning geography and *investigating these from the pupils' perspective* within the context of GNC, the research provides empirical evidence on which future judgements about curriculum planning can be based. It also concentrates on this most recent and influential development in the 11-14 age group, the implementation of GNC and adds to the ever-growing body of research in this field.

The goals adopted for this research required certain methodological decisions to be taken: data was required in a form that could be analysed to address the questions posed. It is to the discussion of methodology that the next chapter now turns.

## **CHAPTER FOUR**

### **METHODOLOGY**

#### **Introduction**

The second section of Chapter 1 described the process by which the research question evolved coming to focus upon the pupils' experience of National Curriculum Geography.

This chapter discusses in more detail the methodology underpinning the research process. The initial section considers the fundamental assumptions underlying the research; ontological, epistemological and methodological considerations. A discussion of the data analysis and the application of the phenomenographic method follows this. A critical airing of the data collection methods, including case study, the longitudinal nature of the research, diaries, documentation and semi-structured interview, follows. Finally, the chapter is concluded with a consideration of the nature of the research and the justification of such approach adopted.

As previously outlined in Chapter One, the focus of the research narrowed from a consideration of the National Curriculum Geography in all its aspects to one concentrating on the pupils' experience of geography and its learning. The reasons for this change were on the one hand pragmatic, for example, certain key informants in the process could not be contacted and used as a data source. The major reasons however, related to the process of undertaking qualitative research and it is to this I now turn.

Although the focus of the thesis has evolved, the fundamental assumptions underpinning it, that of ontology, epistemology and methodology, have remained consistent throughout.

### **The ontological, epistemological and methodological considerations**

In their text on research methods, Cohen and Manion (1989) identify two conceptions of social reality:

“The former...concerned with discovering natural and universal laws regularly and determining individual and social behaviour, the latter...emphasises how people differ from inanimate natural phenomena and, indeed, from each other.”  
(Cohen and Manion, *ibid* p6)

These differing conceptions of reality in turn influence what Ghaye terms the, “three fundamental building blocks of any research: ontology, epistemology and methodology” (1996, p359).

Authors such as Cohen and Manion (1989) and Guba and Lincoln (1989) have attempted to categorise the two conceptions of reality and from this various terms have been used to identify the differences. Cohen and Manion (1989) prefer the subjective-objective dimension whereas Guba and Lincoln (1989) refer to the conventional-constructivist belief system. Figure 7 is a merging and slight modification of these authors’ interpretations.

The issue of ontology relates to the question, what is there that can be known or what is the nature of reality? (Guba and Lincoln, 1989). The dialectic presented in Figure 7 suggests on the one hand that a single objective reality exists that is independent of a researcher’s interest. At the opposing end of the spectrum,



subjective realities are multiple, socially constructed and devised by individuals attempting to come to terms with their experiences (*ibid*).

Figure 7: Contrasting social realities

<b>Objectivist/ Conventional</b>		<b>Subjectivist/Constructivist</b>
Realism/ Realist	<b>Ontology</b>	Nominalism/ Relativist
Positivism/Duellist Objectivist	<b>Epistemology</b>	Antipositivism/ Monistic
Nomothetic /Interventionist	<b>Methodology</b>	Ideographic/ Hermeneutic

(Source: Guba and Lincoln, 1989; Cohen and Manion, 1989)

Throughout the whole process, including the filtering of the main question, the object of the present research has been firmly set within the camp of the relativist ontology. In attempting to investigate individuals' experience of National Curriculum Geography (teachers and pupils) one has to consider the interaction which takes place. This will vary; "depending on the kind and amount of prior knowledge and level of sophistication that the constructor brings to the task" (Guba and Lincoln, 1989, p86). Thus, one would expect a teacher steeped in the preparation of materials and the Statutory Orders to have constructed a reality which differs from a pupil who is having to approach the curriculum in a different way. It is quite possible that constructions of realities are shared by individuals, yet this does not make them any more real in an objectivist sense, just more commonly assented to (*ibid*). So, although the National Curriculum Geography is a reality there is no natural "law" waiting to be discovered which will explain all aspects of this phenomenon. Indeed, Bale (1995) has explored this point fully arguing that the National Curriculum is defacto a post-modern artefact, capable of being interpreted in a number of ways,

"the entire document can be read as a strange mixture of geographical paradigms and an equally eclectic mix of educational philosophies - from utilitarian to reconstructionist" (*ibid* p3).

Consideration of the questions of epistemology (the relationship of the knower to the known) depends initially on how the ontological (what is there that can be known) question has been answered. Again, depending on one's view of social reality, a dialectic may be apparent. For the objectivist, clear water must exist between the phenomena and observer, the subject-object dualism (Figure 7). In contrast, the subjectivist would argue that it is impossible to separate the phenomena from the observer. As in any research, it is the form of this interaction that creates the data presented for analysis.

Such a monistic<sup>4</sup> perspective actually eradicates the ontological-epistemological distinction. As Lincoln and Guba (1989) have written,

"it is not possible to ask the questions, 'What is there that can be known?' and 'What is the relationship of the knower and the known?' independently" (*ibid* p88).

Within the present research the interview process required the 'bracketing' of the researcher's own beliefs, but the values of the inquirer are still present in the process through decisions of designed organisation. It is a fundamental part of the process that the researcher has to tease out the experiences from each respondent; they do not exist in a neatly mapped format waiting to be discovered via the speaking of some 'magic words'. Therefore, the researcher, in assuming that knowledge is both personal and subjective, is unavoidably involved in this subjectivity. This is perhaps even more the case when interviewing pupils rather than adults. For example, the present research

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<sup>4</sup> Lincoln and Guba (1989) describe a monistic epistemology as one where the linking of the inquirer and inquired occurs in such a way that the outcomes of the investigation are a literal creation of the inquiry process.

introduced diary keeping as a voluntary activity, although all informants had to be involved in a semi-structured interview. Such a decision on the part of the researcher, who has the power to organise the scenario, immediately involves him in the subjectivity of the whole process. As Mac an Ghail notes, "the establishing and maintaining of these relationships will largely determine the quality of the data collected" (1991, p109).

Just as the epistemological stance adopted depends on the ontological assumptions, so must the methodological position be in tune with the underlying philosophical viewpoints. The subjectivist paradigm adopted infers that the research must be conducted in such a way that understands how "the individual creates, modifies and interprets the world in which he or she finds himself or herself" (Cohen and Manion, 1989, p8). For Guba and Lincoln (1989) there are four specifications which the methodology should adopt: the setting, the inability immediately to identify what data is salient, the use of qualitative methods to obtain data and the ability of the researcher to draw upon their own tacit knowledge.

In investigating pupils' experiences of National Curriculum Geography it was considered important to conduct the enquiry in the same time and context frame that the researcher is attempting to understand. In this case the time frame is Key Stage 3, 11-14 years, and therefore a longitudinal approach was thought to be necessary (this aspect will be further considered in the methods section of the present chapter, p109). The context of the pupils' curriculum experience is school, particularly classrooms and hence it was thought to be natural for the research to be based in this environment.

As the phenomenon under investigation was a new initiative introduced into schools nationally to coincide with the commencement of the research, clearly it was difficult if not impossible for the researcher to know in advance about the pupils' experiences.

As the research process developed the key objective became progressively more focused through the modification and filtering of the questions being asked. This modification took place via an ongoing analysis regarding the aim of the research informed by the type and quality of data being collected.

To discover salient data that was going to be 'rich' and 'soft' in quality, methods had to be found which would provide access to this type of information. These would involve the researcher in a dialogue with the informants and *ipso facto* qualitative methods would provide the best route to achieve this. In this case the main methods chosen were interactive diaries and semi-structured interviews (these will be considered later in the chapter, p110-116).

Although the researcher enters the field with an open mind towards what information is salient, decisions have to be made if the investigation is to proceed. There is little alternative to achieving this than for the researcher to employ his own tacit knowledge. In this case, investigating pupils' experiences, the researcher being a teacher of geography for 12 years, had considerable expertise in this field and of dealing with pupils. Such experience, and the knowledge gained through reflecting on the research focus and process, provided the key to unlocking the unknown - the pupils' experience. Practically, this manifested itself at the level of the researcher-pupil dialogue in the style and type of questions being asked. Questions were essentially open-ended and provided the opportunity for further probing.

I now wish to move the discussion to the consideration of a further aspect of the methodological process that has been termed the hermeneutical dialectic (Guba and Lincoln, 1989). This involves four interacting elements moving in cyclic fashion.

The first of these and an important aspect of all research is the selection of the informants. In the initial formulation of this research (p14-15) these were to be

representatives from all levels involved in National Curriculum Geography. However, as the focus was refined to concentrate on the pupils, maximum variation sampling (Patton, 1980) was implemented a method which provides "the broadest base for achieving local understanding" (Guba and Lincoln 1989, p178). In this case three classes of pupils were chosen out of a possible eight. They represented the whole ability range being designated Sets 1, 6 and 7. The status of my data sets is important in the same way as Powney and Watts (1987) describe the slight difference between what they term 'informants' and 'respondents'. The former provides the researcher with data in their own words being able to explore ideas whereas the latter tend to answer specific questions (p 44). In this research I was looking for 'informants' as I did not wish to receive responses that pupils thought I would want or a reflection of my own opinions (not withstanding the intention to bracket these as much as possible). The longitudinal nature of the research helped in this as, although I was clearly an 'insider', initially the cohort was new to the school and thus I had to gain their confidence and respect.

The second aspect of the hermeneutic process is the interaction of data collection and analysis. I take this to mean the interplay between the two elements which assists in ensuring that the research progresses. In the case of the present research, as outlined in Chapter 1, this interplay provided the means of narrowing the focus of the research from a wide base to that specifically interested in pupils' experiences. At a more practical level, it also manifested itself in the use of individual pupil responses to identify questions to further probe other pupils.

The third element of the dialectic for Guba and Lincoln deals "with grounding the findings that emerge in the constructions of the respondents themselves" (1989, p179) or data analysis. In the present research a specific style of analysis, the phenomenographic method, was adopted and will be considered in detail in the following section.

Finally, from the hermeneutic dialectic arises the emergent design. This develops from a continual cycling of the research process, each element being considered and refined. As the researcher, “becomes better acquainted with what is salient, the sample becomes more directed, the data analysis more structured, the construction more definitive.” (*ibid* p180).

The product of the process outlined above is the report, in this case thesis, which emerges from the evolving research endeavour. The thesis is typified by thick description which clarifies context and allows, hopefully, the reader to draw from it experiences which they can relate to. In a sense, its purpose is to tell a story of a process which is “iterative, interactive, hermeneutic, at times intuitive and most certainly open” (*ibid* p183).

To conclude this section, I believe that my assumptions made explicit in the above account have consistently been applied throughout. As a result the focus of this thesis has modified from one which wished to evaluate the impact of Geography in the National Curriculum on the work of a whole department to one where the experiences of the pupils became the paramount interest. This condensing process took approximately two of the three years I was involved in data collection and perhaps led to a certain amount of data 'wastage' (Lambert, 1995). For example, considerable time and energy was pointed towards interviewing outsiders and teachers within the school. However, although data is of use, never to be wasted in the literal sense, within the final context of this thesis it is somewhat ephemeral. I would however, argue that this is consistent with the philosophical assumptions outlined above.

Thus, at the end of a three-year period I had amassed a vast quantity of soft, thick data that required analysing and it is to this aspect of the process I now turn. It is important to discuss this before considering the particular methods used, as the analysis relates directly to the hermeneutical process outlined above.

## **Phenomenographic Analysis**

I now wish to consider the application of my chosen style of data analysis, termed phenomenography. The discussion briefly considers the nature of phenomenography, followed by its applicability to this study before finally considering the 'nuts and bolts' involved in the analytic process.

### **1. The nature of phenomenography**

As noted in Chapter 1, I became aware of phenomenography and its use in geographical education almost two years into the data collection process. During this time the focus of the research had been distilled into one solely concerned with considering the pupils' experiences of National Curriculum Geography. As part of this distillation process, and in keeping with the philosophical assumptions outlined above, I was frequently reflecting on how the data finally obtained was to be analysed. The general strategies as outlined by Bryman and Burgess (1994) did not appear to fit with the methodological assumptions of this research. Analytic induction, for example, requires an iterative process of problem definition, data collection and problem reformulation patently not applicable in this case (*ibid* p4). Grounded theory initially had appeal, but such an approach requires the researcher to generate categories from some initial data collection and then undertake further research until the categories are 'saturated' (*ibid*). This was not the intention of this research.

However, the general qualitative processes identified by Bryman and Burgess (*ibid* p6) are much more in tune with this research, as they noted the generation of concepts as one of the more common methods of data analysis (*ibid*). There are several authors who have outlined such methods, including Lofland (1971), Hammersley and Atkinson (1983) and Miles and Huberman (1984) and all of these describe the coding of data to produce categories.

Tesch (1990) delimits four main areas of data analysis in the realm of education: the characteristics of language, discovery of regularities, comprehension of the meaning of text and reflection. In the present study the phenomenographic method of data analysis is used, which according to Tesch falls within the realm of discovering regularities through the discerning of patterns in conceptualization (*ibid* p72).

Phenomenography has its origins in the work of Ference Marton and a group of researchers in the Education Department at Goteborg University, Sweden. The term was coined in 1979 and apparently first appeared in print in Marton's 1981 paper.

Marton and his co-workers were interested in the learning that took place in formal settings, particularly colleges and schools. Initially, they "followed the well worn paths travelled by other researchers interested in the psychology of learning" (Marton, 1988a, p148), that is, creating artificial situations from which to obtain information of a generalizable nature.

In the 1970's the group's research approach began to follow a different path. In one study, students who had read extracts from a nominated text were interviewed to discover their understandings of it and the methods they used to analyse the material. The responses were transcribed and subsequently read and re-read by the researchers. What Marton and his co-worker Roger Saljo discovered was that the participants appeared to understand the information in a limited number of qualitatively different ways. After further studies revealed similar outcomes, Marton and his co-researchers proposed that "it was reasonable to expect people in general to hold qualitatively different concepts of all kinds of phenomena" (Marton, 1988a, p149). Therefore, the discovery and categorising of "the qualitatively different ways in which people experience, conceptualise, perceive and understand various aspects of, and phenomena in, the world around them" (*ibid* p144) is the main aim of phenomenography.



This concise statement of Marton's regarding phenomenography requires careful analysis to explain the fundamental tenets of the approach. As the quote suggests, phenomenography is not solely concerned with the phenomenon or the individual, or with the act of perception as a separate entity, but with the link between the subject and an object; thus phenomenography can be said to have a relational perspective. This position is adopted because phenomenographers believe that our knowledge of phenomena is situated in the relation between the person experiencing the world and the world itself. For phenomenographers there are not two worlds (an objective outside world and a subjective internal world) but just one, the world as experienced.

Phenomenography, however, is not simply a method of data analysis, it "is a research method for mapping the qualitatively different ways in which people experience, conceptualise, perceive, and understand various aspects of, and phenomena in, the world around them" (*ibid* p144). Phenomenography does not, however, capture the full range of experience but,

"aims at a very specific level of description...this level has to do with what different phenomena are seen as, what they appear to be, what their potentially different meanings are, how they are delimited from - and related to - their context, as well as other phenomena, how their parts are delimited and related to each other, as well as to the whole" (Marton, 1994, p7).

Or as Svensson states, "describing conceptions of the world...that is meanings and understandings of phenomena" (1994, pp12-13). Thus in the present research, which is concerned with conceptions of National Curriculum Geography, the focus is on the nature of the pupils' experience of National Curriculum Geography.

In terms of its philosophical assumptions, it could be argued that phenomenography is a retreat from the pure relativist approach, or a return to a

more positivistic stance. However, if one views the subjective-objective positions at the extreme ends of a spectrum then phenomenography sits somewhere between. This is because,

“it does not have an articulated metaphysical function...individual researchers doing phenomenography may make such assumptions, but they certainly vary between the researchers. It is possible to have any and all of the metaphysical positions within the main categories of materialism and idealism and do phenomenographic research” (Svensson, 1994, p14).

In fact, phenomenography is committed to a non-dualist ontology. Thinking in phenomenography is described in terms of what is thought about i.e. the content, this being 'located' between the individual (subject) and phenomena (object). For phenomenographers these two aspects cannot be separated, as there cannot be understanding without someone to understand and something to be understood. To put it more clearly, phenomenography requires the adoption of an experiential or second order perspective.

A second order perspective attempts to characterise people's experience of the world, in contrast to the first order perspective which aligns itself towards the world and makes statements about this. Marton argues that these two perspectives are not conflicting, but are in fact complementary; that which can be deduced from one cannot be gathered from the other. The argument for adopting a second order perspective is a persuasive one. Using a first order perspective requires the researcher's description of reality, that is our own perception of an individual and his or her world, whereas the second order, or experiential perspective, describes the world through the individuals' experience. And, as humans experience 'things', the description of their perceptions has to be in terms of this content; this does not necessarily mean the correct meaning of the content, but the meaning the individual attaches to it.

Thus, to reiterate phenomenographers believe that the relations that make up knowledge exist between individuals and phenomena.

This interpretation implies that people do not have mental models or understandings; conceptions, from the phenomenographers point of view, are non-psychological. They are, to quote Marton, "dispositions which are embodied in a variety of psychological acts such as experiencing, perceiving and conceptualising something" (1988b, p14). So understandings, from the phenomenographic perspective, are specific to particular phenomenon and occur in a particular context, yet they are not specific to context, which allows their use in a variety of circumstances. For example, Gerber's (1992) work on discovering the conceptions of the nature of geography as held by trainee teachers although fixed in time and place could be used in other situations when such a phenomenon is being investigated.

This means that if we are interested in pupil's experience of National Curriculum Geography then this has to be investigated directly as the answer cannot be found from what we know about the human mind or about National Curriculum Geography or a combination of both.

The epistemological stance of phenomenography focuses on description and method of categorisation that fits the purpose of the present research. Similarly, its methodology has characteristics pertinent to this research, "the explorative character of the data collection and the contextual analytic character of the treatment of data" (Svensson, 1994, p18) and it is to this I now turn.

## **2. Data collection and analysis**

The collection of data for analysis requires phenomenographers to adopt a particular research procedure. The aim being to discover individuals'

conceptions of the phenomenon under investigation, it is vital that the actual words of the respondents are obtained. In phenomenography, not surprisingly, the main technique used to obtain data is the taped semi-structured interview, although writing in natural settings, for example, learning-logs, and participant observation, have also been employed in various research projects (Russell and Massey, 1994; Gerber *et al*, 1994).

In the present research both pupil diaries and semi-structured interviews were used to gather data (see data collection methods section below) as both of these were seen as an ideal strategy for exploring pupils' understanding of National Curriculum Geography.

The nature of the questions and their framing are crucial to the phenomenographic endeavour. In the interview/data collection procedure the researcher asks open-ended, non-technical questions, for example, 'What is Geography?' This provides the interviewee with the opportunity to interpret the question in an individualistic manner and respond to whatever aspect of the question they wish. Subsequent questions are then formulated on the responses given, with the interviewer bracketing his or her own beliefs about the phenomenon in question. So, even though each interview commences with the same series of non-technical questions, different courses may follow depending on the response of the participants.

In the diary dialogue the topics ranged far and wide during the three-year period. However, the researcher's main aim was to explore as deeply as possible the meaning apparent in the pupils' comments. Although these responses were lengthy, up to 750 words in some cases, the next set of questions posed frequently asked for clarification and phrases such as, "What do you mean by..." and "Could you tell me about..." were common. However, more focused but open questions were also asked, for example, "what was the purpose of studying..." Or "what did you think of..."

As the interviews took place in the final year of the data collection with the aim of getting the pupils “to disclose their relationship to the phenomenon under consideration” (Bowden, 1994, p 8) a general outline of interview questions was designed (Figure 8). This may answer Francis’s (1993) concerns regarding phenomenographic interviewing:

1. What sort of prompts were used in interviews and what were their effects?
2. How did the conduct of the interview lead the respondent?
3. How was the interview kept on target?
4. How was the respondent's understanding of their purpose of the interview checked?
5. What convinces the reader that the interview is an accurate record of the articulation by the respondent of the phenomena experienced?

Once all the data have been collected, the first step in the analytical procedure is to transcribe the responses word for word. The resulting transcripts then form the data set to be analysed.

The analysis of the data is a search for the qualitatively different ways in which the phenomena under investigation is understood. Marton (1988a) describes the procedure as tedious, time consuming and labour intensive and it proceeds along the following lines.

All the data are gathered together, read and re-read, with the intention of searching for comments that are relevant to the question being investigated. The intention, however, is not simply to sort the data but to determine distinctive characteristics. All comments in the whole data set related to the phenomenon are selected and marked. The resulting cohort of quotes thus defines the boundaries of the phenomenon. The actual quotes then constitute the data pool for the next stage of the process. Analysis is now focused on the meaning

Figure 8: The interview questions

1. What is geography?

- what makes it different to other subjects?
- why do you have to do geography at school?
- what use will it be to you in future?
- how useful is it compared to other subjects?

2. How do you learn the work we do in geography?

- which way do you learn best? Why?
- if you think about the recent work, how did you learn it?
- tell me what you learnt in X?
- what was the most important thing you learnt? Why?
- should everyone learn the same thing?
- how are you progressing in geography?

3. How do I find out what you know?

- what do marks mean to you?
- what is the purpose of the tests?
- what is the purpose of the reports?

4. If you were asked what is the National Curriculum, what would you say?

- what are levels? SoA?
- what is the point of a National Curriculum?

implicit in the quotes rather than in their origin (the interviewee) and so the boundaries separating the individuals are abandoned. The quotes thus have two contexts in terms of interpretation, the *source interview* and *the pool of meanings* to which they belong.

The pool of meanings is then studied and utterances relating to the phenomenon are identified and categorised on the basis of similarity, difference and complementarity. In reality, this entails sorting quotes into groups and examining borderline cases closely and, through frequent re-reading of the quotes, the criteria for each set is clarified. Slowly, the number of categories is reduced until finally each is defined in terms of its core meaning. The procedure is dialectic, as the category is defined in the process of pooling the quotes and, in turn, this definition determines the inclusiveness of the quotes.

Saljo (1988) has suggested that this method of analysis will usually produce three to five qualitatively different ways in which people understand phenomena. However as Booth (1992) also notes,

“the process of studying material from scratch might occur more than once and different perspectives might emerge, or deliberately be adopted, all according to the researcher's goals and research framework. At the same time, reference might be made to the literature on the subject, thus lending new insights and suggesting new angles of study. There is a persistent desire for parsimony in the set of ways of understanding, for as in all scientific endeavour, simplicity and completeness are complementary goals. Eventually it is felt that a satisfactory set of ways in which the subjects understand the phenomenon of interest has been arrived at, and fewer or simpler or more rigorous categories are not found. Then there are two further stages left the description of the results and the consideration of their structural and relational properties.” (1992, p63).

The data sets obtained through the analytical process described above are called *categories of description* by phenomenographers. Once these

categories emerge, they are then tested against the data, modified and retested in an iterative process until the whole system of meanings is stabilised.

Phenomenographers believe categories of description to be the primary outcome of their endeavours and, that although originating from contextual understanding in the process of analysis, they become decontextualised. For example, Gerber's (1992) phenomenographic study of the conception of geography involving twenty trainee geography teachers produced three conceptions that could be used in other contexts. Thus, categories of description are abstract tools used to characterise conceptions (which are actual experiences) and are stable and generalisable between situations.

Within the categories of description, Marton (1988a) has suggested that four different but interrelated aspects can be identified:

1. Relations between the individual and aspects of the world around him or her in the present context.
2. An experiential or second order perspective.
3. A focus on the experienced content; and
4. A qualitative consideration of the way that something is perceived, thought about or comprehended.

The qualitative differences in the categories can also be ordered in two ways, that is, **structurally** and **referentially**. The structure refers to the arrangement of the outcome, for example, sequential or hierarchical, whereas the referential alludes to the meaning of the statement. Wood (1995) in his study 'Learning to Teach' revealed three main conceptions of teaching. He describes these in terms of the process and outcome of teaching and suggests that they differ in terms of how their component parts are delineated and related to each other (structure) and in their meaning (referential aspect). But how also within each



conception structural and referential aspects are dialectically intertwined (*ibid* pp 83-84).

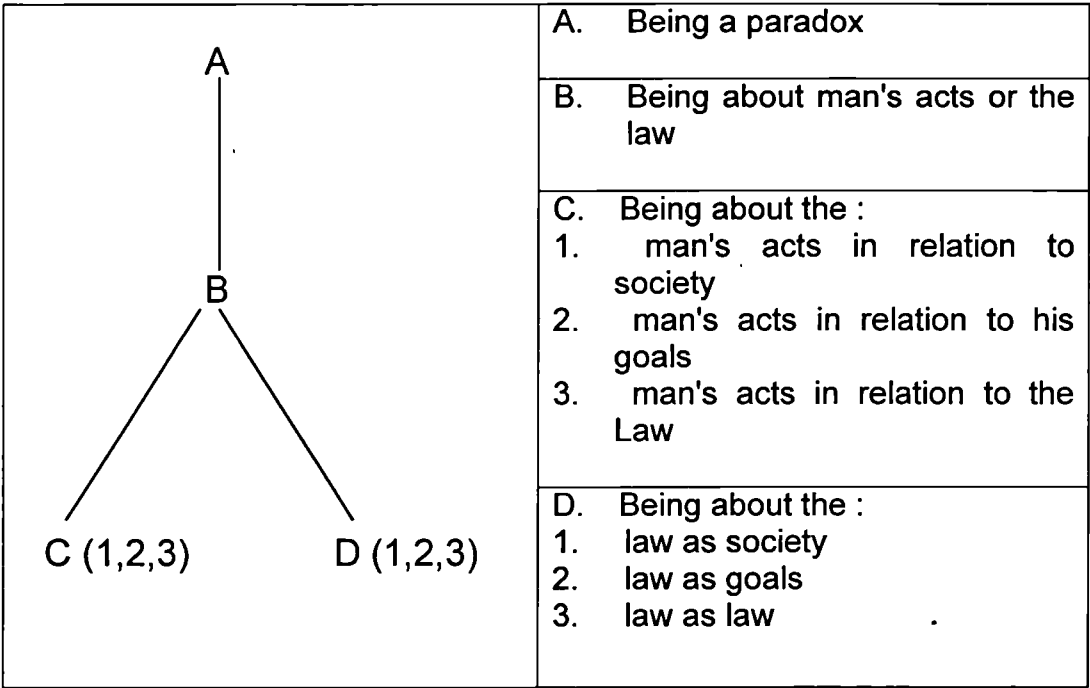
The final stage of analysis is recognising that each category of description is potentially part of a larger structure in which the categories are related to each other. Thus, the presentation of the logical relations between categories of description as different conceptions of the same phenomena is sought, and this is called the 'outcome space'. That is, the whole set of categories of description or the extent over which the interviewee's thoughts ranged. The outcome space, therefore, is a form of ordered conceptions that reflects increasing levels of complexity in understanding. The work undertaken by Marton *et al* (1992) illustrates a hierarchical outcome space for the interpretation of Kafka's 'Before the Law' (Figure 9).

In the present research data was collected from three separate years 7, 8 and 9. To analyse these, each year was taken in turn and the diaries and interviews read and re-read. The writing out on a file card of any comment relating to geography then followed. The source interview or diary being signified by a number, for example, 7.23 or 9.46, the first number being the year from which the comment was obtained, the second the code given to that data source. A different colour card was used for each year to help in identification. The comments written out were initially classified under various headings located in the text: 12 were discovered in Year 7, 17 in Year 8 and 15 in Year 9. In Year 7 there were 252 cards, Year 8 345 and Year 9 658.

For each of the years the cards were read and re-read in an iterative process in an attempt to identify various conceptions and their related categories of description pertinent to the two research questions; what is geography? and what is learning geography? With reference to existing literature (Gerber, 1992, Marton *et al*, 1993), the categories were slowly reduced in number until it was felt that a satisfactory set of fully inclusive, yet mutually exclusive, conceptions

for each phenomena had been arrived at (see Chapters 7 and 8 for a full discussion of the findings). This proved to be a very long, iterative process taking upwards of 100 hours.

Figure 9: The Outcome Space of 'Before the Law'



(Marton, Carlsson and Halaz, 1992, p6)

**Issues relating to the phenomenographic method**

The adoption of phenomenography raises a number of issues pertinent to the present research. For example, the nature of samples, longitudinal studies and the traditional concerns of validity and reliability are all issues that can be the source of considerable debate.

With regard to sampling, in the few research reports published to date that discuss this issue (Renstrom *et al*, 1990; Marton *et al*, 1993), cohorts of between twenty to one hundred respondents have been used. As befits qualitative as opposed to survey research, the issue of sample size is not an overriding one. In this research the cohort varied over the three years between 48-55 individuals (see the section below on case study). The nature of phenomenography, in identifying a limited number of qualitatively different ways a phenomenon is understood to work at the supra-individual level, reduces the importance of sampling.

Time sampling in terms of optimum length of interviews is not mentioned in any of the studies, although the majority lasted between forty and sixty minutes, these however were with adults. Pramling's (1988) study with young children makes no mention of the length of interview and in the present study all the discussions lasted generally between 25 and 40 minutes, with a few up to 60 minutes.

Some further concerns regarding phenomenography are also worth brief consideration. The majority of papers articulating phenomenographic investigations have used a cross-sectional approach (Renstrom, *et al*, 1990; Ramsden, *et al*, 1993; Ballantyne and Gerber, 1994). In studies where a longitudinal dimension was implemented, as in the present research, the focus was conceptions of learning (Pramling 1988; Marton *et al*, 1993; Ekeblad and Bond, 1994). In the latter articles, little discussion of the reason for, relevance of, or impact of the longitudinal nature of the study is forthcoming. This perhaps begs the question is phenomenography best suited to cross sectional studies rather than a developmental approach? Also, is it possible to group together all experiences (in the form of transcribed quotes) in a pool of meanings regardless of the consideration of time? For example, in my own research, is it valid to classify quotes taken from individuals when aged eleven years with those

forthcoming from the same individuals after a further two years experience of the phenomenon under study?

Such questions move the discussion forward to the issues of validity, reliability and generalizability which require consideration particularly when claims such as, “a set of categories aims to be generalizable across individuals, time, space and psychological actions” (Ramsden *et al*, 1993 p303) are made. A number of authors (Gerber *et al*, 1994; Grandin, 1994) reject the classic position regarding the justification of validity and reliability and suggest that it is the soundness of the approach to the whole of the research endeavour that is vital,

“as long as the qualitative research process involves consistent adherence to the selected principles that underpin the relevant methodology then it can claim to be a sound study” (Gerber *et al*, 1994, p4).

However, in a number of studies an inter-rater reliability test was undertaken (Renstrom, *et al*, 1990; Gerber, 1992). Although the detail of how this process works is only briefly articulated, for example,

“in order to maximise the validity and reliability of the results, four researchers were involved in the process of data analysis and interpretation, initially separately and then collectively” (Ballantyne and Gerber, 1994, p49).

Burns attempts to extend this critique and suggests that perhaps “it would be feasible and helpful to seek comment from participants on draft categories, or to engage participants in earlier stages of selecting and grouping quotes” (1994, p74). Although this sounds ideal, is it possible given the time consuming nature of the process and particularly if dealing with school cohorts? In the present research this has not proven possible due to the time actually taken to transcribe the 70 plus hours of interviews and also that this was not an expectation at the outset.

Booth (1992) identified three aspects of validity pertinent to phenomenographic research:

1. Content related validity

To claim this the researcher must be grounded in a detailed understanding of the subject content, however he/she must also be willing to seek ways of understanding phenomena outside of the ordinary/common.

2. Methodological validity

The research should be carried out to phenomenographic principles - data collection should be open yet deep and analysis should continually question the data in the search for categories of description.

3. Communicative validity

The results of the research should be capable of being understood by those involved in the area of study including the subjects of the research and teachers as well as those working in the research community.

In the present research content validity was ensured through myself being involved fully in the design and preparation of the materials used to teach National Curriculum Geography in the school and in co-authoring publications in this field. As a researcher I had also attended a conference<sup>5</sup> on Phenomenography which enhanced my understanding of the research methodology.

Methodological validity of the present research is high due to the choice of subjects for study that narrowed as the process proceeded. A cohort of pupils to first experience National Curriculum Geography were chosen and the reason for diary keeping and interviews was explained at the outset - this including a note to each set of parents. The methods of data collection, diaries and interviews, focussed on the pupils' experiences of National Curriculum Geography attempting to probe their deeper understandings using non-technical questions.

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<sup>5</sup> Phenomenography: Philosophy and Practice A course at QUT, Brisbane, Australia. 7 -11 November 1994

Although at times the discussions drifted from the central theme, throughout the research the guiding principle was to discover the pupils' experiences of National Curriculum Geography.

The outcomes of analysis and how they are expressed through presentation of the results is the test for communicative validity (see Chapter 7 and 8). However in an attempt to initially test my findings I undertook a partial inter-rater reliability test. This involved the 1997 cohort of Geography MA students at the Institute of Education. In a two hour session they were split into three groups and presented with the conceptions of geography I had discovered, the year 9 statements appertaining to the question, what is geography and a recording sheet (see Appendix C). The aim was to get them to categorise the statements. They spent about one hour categorising the 85 statements provided. This was then followed by a discussion on the process and the actual conceptions themselves. Although showing some variation between the conceptions, the overall agreement with my own categorisation was at the level of 81%. This, according to Gerber is,

"a high degree of intersubjective agreement and it is reasonable to claim that the categories of description proposed do in fact reflect the qualitatively different variations in the subjects' understanding of the selected phenomenon" (1992, p10).

My final concern is with the results of phenomenographic research - the categories of description and outcome space. Notwithstanding Ramsden's *et al* (1993) claims, that phenomenography has implications for teaching and learning such as diagnostic assessment, a major aim is to develop description. However, in a specific subject domain such as geography, how can these descriptions be used? If three conceptions of geography are discovered amongst student teachers (Gerber, 1992) how can these be used to improve students understanding of geography? As yet this appears to be an issue that

phenomenographers working in the field of geography have not yet tackled, although work in science does seem to be ongoing (Ramsden, *et al*, 1993). As McNamara states,

“the researcher should be able to provide the teacher with worthwhile information which may be pertinent to her practice and equally to make evaluative judgements about whether or not the dramatic changes which are now being wrought within the educational system, do in fact lead to improvements in the quality of both teaching and learning” (1990, p233).

McNamara is suggesting taking communicative validity a step further in that it is simply not satisfactory for research to be understood by those involved in the field, it must also be useful. It is left to the reader to decide whether this is the case in the present research. However, being a teacher myself, this would seem to me to be an appropriate aim for phenomenographic work within geography. This thesis concludes with a short discussion of the practical implications that arise from the research, of the kind that can be taken up at staff development meetings and in-service training.

### **Further methodological issues**

Although the data set used in the present research has already been briefly outlined, various other methodological issues appertaining to the study require discussion, namely case study, its longitudinal nature and the methods used to collect the data: diaries and interviews.

## 1. Case study

One of the major decisions any researcher has to make involves the selection of cases to study. Hammersley (1992) sees the selection of cases as one element distinguishable from four general areas of research design (the others being problem formulation, data collection, analysis and reporting findings) and suggests that case study is just one method of case selection strategy along with experiment and survey. For Hammersley a case study “involves the investigation of a relatively small number of naturally occurring (rather than researcher created) cases” (*ibid* 1992, p185). My final research design which focused on two classes corresponds to Hammersley's definition of case study as he views surveys as a “large number of naturally occurring cases” (*ibid*) and experiment as being when the “researcher creates the cases to be studied” (*ibid*). The reason for choosing the case study approach in the present research was a highly pragmatic one: I could gain access to the individuals involved with ease as I taught them. Also this approach was a valid in terms of the phenomenographic principles outlined above.

Adelman *et al* (1976) view the formulation of a case study in two ways: first where an issue is given and the “bounded system (the case) is selected as an instance from a class” (*ibid* p141). Secondly, the bounded system or case is given and as a result of research issues are discovered and studied so that a full understanding of the case is obtained. In the present research, the issue was given, the introduction of Geography in the National Curriculum, and the case selected from a class, the whole year group. Originally this consisted of three sets from a class of eight that spanned the whole ability range. However in the second year of data collection, the school reorganised the setting reducing the cohort to six groups of which two were followed (a merger of the original three). Adelman's first type of case study will “be predisposed towards making generalisations about the class” (*ibid*), whereas the second type makes generalisations about the case. I believe this claim to be rather too general as it



may depend on the method of data analysis. Phenomenography being decontextualised from the individual aims to discover abstract tools, categories of description, that are stable and generalisable between situations not just cases or classes (p100).

## **2. The longitudinal approach**

A further aspect of this research is its longitudinal nature - the gathering of data over an extended period of time. There are only a limited number of accounts which focus on the impact of a longitudinal approach on the research process (Nias, 1991). This is perhaps because it was not until the 1980's that autobiographical accounts, discussing the completion of research, became popular (Bryman and Burgess, 1994). Nias (1991) in her account of the lives of primary teachers outlines the problems and opportunities beset in this style of investigation, although her study took place over a much longer period than my own.

Cohen and Manion (1989) suggest there are two forms of longitudinal research, the prospective (involving the ongoing collection of data from individuals or about events) and the retrospective (focusing upon a past period or events in an individuals or groups lives). The justification for a prospective longitudinal approach within this research was again pragmatic: Key Stage 3 National Curriculum Geography covers a three-year span. The first cohort commenced in September 1991 with pupils aged 11 (year 7) and ended in July 1994 at age 14 (year 9). The data collection therefore facilitated a whole key stage perspective and allowed a developmental approach to certain questions, such as, 'What is geography?'

There are obvious benefits of longitudinal studies over the cross sectional snapshot (Douglas 1976), however, there are also a number of issues which

face the researcher adopting this strategy. Within the present research one issue was that of sample mortality, this being the loss of informants during the data collection period due to lack of interest or co-operation, particularly as participation was voluntary. To diminish the damaging impact of this, the two same groups in terms of the school structure were monitored for the three years. This ensured a core cohort of informants although it could not cater for those pupils who were promoted or demoted internally or those who left school.

Maintaining the interest of the pupils over a long period was also problematic. At the commencement of the data collection I decided that participation should be voluntary as initially the majority of the pupils responses were to be completed outside of school time. Unlike Ghaye (1984), who used similar methods for one year, I felt that class teaching time could not be used for pupils to write their thoughts/comments. The present research required individual responses and providing class time would also, I believed, lead to collaboration through discussion. How interest was maintained will be discussed in more detail in the following section.

### **Data collection methods**

The methods of data collection used in qualitative research are well documented (Burgess, 1984; Cohen and Manion, 1989) with the most critical question being fitness for purpose (Trow, 1957). Four main strategies were employed to gather the soft, rich, descriptive data (Bogdan and Biklen, 1982) required - diaries, semi-structured interviews, documentation and 'one off' written pieces. For a list of active data see Appendix D.

## 1. Diaries

For various reasons, diaries were intended as the main method of data collection at the outset of the research. I had already had experience using them in the context of school and wished to develop this (Dowgill, 1989). More importantly, even though I was a participant-observer in the process of teaching Geography in the National Curriculum, with large classes it is impossible to discover what many of the pupils think about the work they are undertaking (Gaine, 1987). Thus I needed a method which would allow me access to each individuals' perceptions and how they change over time (Ghaye, 1986). Although there has been some concern over the use of diaries with pupils (Elliott, 1976), I believed that,

“by using the diary to ask questions aimed at clarifying participant understandings, a context can be created where pupils feel they can inform and share rather than merely reply. The diary then becomes a dialogue.” (Ghaye, 1986, p127).

Burgess (1984, p199) notes that diaries are a common method in ethnography, but few accounts are explicit in portraying how they are established and maintained. In my own research, the diary was simply a green exercise book handed to each student at the commencement of the academic year. Inside was a note for parents to sign explaining the purpose of the diary that also gave it further credence in the eyes of the pupils. As already noted, the diary was a voluntary activity this being outlined to the pupils in a discussion session at the start of each year. I wanted the responses to be as unsolicited as possible, although trying to ensure that enough data was obtained, as I felt that in this way they would be more meaningful (Ghaye, 1989). In an attempt to kick-start the process the first question asked was common to all and set as part of homework, thereafter the endeavour was voluntary. The idea was then to allow the pupils time to reflect before entering their response to my questions in the

hope that I would get a more detailed reply. Figure 10 illustrates a typical diary question and response.

Various issues relating to the use of diaries such as selectivity, bias and authenticity (Ghaye, 1989) as well as more practical questions arose during the data collection process.

A pupil's diary is clearly a selective account, not free from bias or distortion (*ibid* p180). To overcome this problem a phenomenographic perspective was used which through non-technical and non-threatening questions attempted to tease out each pupil's full understanding of the various issues being discussed. This also required the bracketing of my own beliefs and non-judgmental responses that searched for further meaning and clarification.

Figure 10: A diary response

22/9/91 PD Can you tell me what you thought about the first couple of lessons about mapping the places, also have you any comment about the homework? Thanks.

30/9/91 AB I think the first couple of lessons about mapping the countries was very good and it gave me a good idea about where the south east is in relation to Europe. As for the homework, I had tons of reference books out before I had the answer. I'm not saying it's hard, but maybe a bit tiring with the Times Giant World Atlas on my lap!

Ensuring that the pupils' accounts were authentic was also an issue that perplexed me for some time. How could I be sure that they were being truthful

and were not disguising their true thoughts and beliefs? Again the use of language in responding to the pupils was vital and it took some time to discover that individuals responded in different ways. By the second term of data collection my written responses were very personalised, there was no standard response even to similar questions. The use of the pupil's name was the stimulus for some whilst others wished to know more personal information about myself particularly relating to their own interests. Being honest about the research endeavour and stressing the voluntary nature of the process also proved important. Building a relationship over the three-year period through the diary enhanced the authenticity of the accounts, pupils felt confident to write asking for an explanation or disagreeing with something that I had written. Myself stressing the nature of the confidentiality of the diaries from the outset and throughout the data collection process also I believe helped considerably in appeasing any fears the pupils had of accountability. I am now sure that some initially tried to test my position on this point, however after a couple of entries and responses I feel they saw my claim as genuine and the issue seldom arose again.

Some practical problems also merit consideration. Maintaining an interest in diary writing over a three-year period proved problematic. In the first year of data collection, the pupils were new to the school and I now believe they thought they had to agree to my wishes, notwithstanding the voluntary nature of the diary, and write regularly. As time passed this belief diminished, although a core of pupils did write consistently throughout. As Ghaye suggests,

“dialogue through diaries requires of the teacher certain personal qualities...teachers must be willing to share something of themselves with the children through the diary.” (1989, p180)

By being honest in my responses to all questions asked of me, I hoped to encourage frequent entries from the pupils. Class and individual discussion

about the value and importance of the pupils' comments was a further strategy employed. The call of 'and don't forget your green books, thanks' became a common occurrence at the end of lessons, quickly leading to mimicking from the pupils, yet it worked as a reminder for some. Showing value by returning the diaries the next day with a full response and seeking out each individual also paid dividends in maintaining interest over such a long period. Perhaps allowing lesson time would have helped, however, I wanted the pupils to reflect and think about what they were writing and five or even ten minutes at the end of a period was not sufficient for this. Also this would have removed the voluntary nature of the endeavour which was an important methodological strand.

An interesting issue occurred with one class at the completion of the data collection period that still poses a dilemma for me. A number of the pupils were reluctant to hand in (and still yet haven't) *their* diary. Comments such as, 'I've lost it' or 'yes, I'll bring it in' perhaps mask the situation that after three years some of the dialogue within the diary became very personal and hence the pupils wished to keep it (Ghaye, 1989). This I simply have to accept though I have spoken to certain individuals and written to others promising the return of the diary when I had finished with it. Interestingly a few pupils leaving school two years later handed the diaries in to me but neither of the former tactics had any effect.

Perhaps the most serious issue (leading to the development of the second data collection strategy, semi-structured interviews), however, faced a number of pupils in one class: they did not like writing. This became evident in the first year of data collection with around half of the class either telling me or making a statement in the diary! Although I continued to encourage them the best I could I decided that those who were reluctant to write I would interview.

Before considering interviews I need to briefly outline the other diaries kept during the research. As the researcher I kept three different diaries, the first

methodological (Hamilton, n.d.) being a chronological description of the research process. The second diary provided a substantive account of the events that occurred in each lesson with both sets (Burgess, 1984). Finally, a diary recording the school day, events and conversations was written each evening, this also providing the means for reflection on the research process. All three of these provided a contextual framework in which to set the main focus of data collection.

## **2. Interviews**

Much has been written about the use of interviews as a method of data collection (Burgess, 1985; Woods, 1986; Cohen and Manion, 1989) although only a few articles deal specifically with school students (Simons, n.d.). This is not the place to review in full this strategy, however a number of salient points are worthy of consideration.

The researcher has to make a decision regarding the style of interview: structured, semi-structured or unstructured. In this research, a semi-structured approach was adopted, with four main themes being covered in each interview (Figure 8). The rationale being the limited amount of time available, interviews took place during the 45-minute lunch break (although a few did extend to a second session). And, ensuring that all the themes were covered with each interviewee.

Interviews allow for both flexibility and increased depth in comparison to other methods such as questionnaires (Pope and Denicolo, 1986). They also require the interviewer to bracket their beliefs so as not to influence the interviewee. This can be a particular problem when interviewing pupils as, "talking too much, listening too little, suggesting answers are real traps if one is aspiring to reflect pupils' thoughts and feelings" (Simons, n.d. p122). I was very conscious of this

and now listening to a number of early recordings it is apparent that I did speak too much. Further, being aware of the time restriction, on occasions probably 'pushed' the interview too quickly, although the comments tended to be summaries and not an exposition of my beliefs.

Becoming aware of phenomenography helped clarify and improve my interview technique, so that by whole cohort interview process I felt more confident in letting the respondents speak. As Bruce states "although the phenomenographic interview belongs to the family of qualitative research interviews, it has distinctive characteristics which set it apart" (1994, p47). Put simply the phenomenographic interview focuses on the respondents' understanding of the phenomena in question, the interviewer seeing the phenomena from the interviewee's perspective and it attempts to extract experiences and descriptions of events which influence these. To achieve this, the interviewer asks non-technical questions using the command word 'what' so as to draw out description from the respondent. However, it is not always as simple as this, interviewing 11-14 year olds one cannot ask, 'What is your experience of Geography in the National Curriculum? So, to garner an answer to this phenomenon a series of 'simpler' questions must be employed, in this case these were focused around: what is geography? What does learning geography mean? What is assessment in geography for? And, what do you know about the National Curriculum? Using these as a guide a fruitful conversation can unfold, which through later analysis may lead to a discussion of the pupil's experience of geography.

Finally, documents and 'one-off' written pieces were also sources of information. The former are those documents which help contextualise the whole study. The departmental staff undertook one-off writings. The first was a description of their understanding of geography completed at the start of the research phase or, as in two cases, when they joined the department. The second were end of unit evaluations consisting of four open-ended questions relating to the content,



style, assessment and suitability of the module. Over the three-year period thirteen of these were completed, most by each member of staff. All this documentation provided context for the main focus of the present research that of the pupils' experiences of National Curriculum Geography.

### **Summary - can this research be categorised?**

The middle section of the first chapter outlined the changing nature of the present research and how its focus evolved during the three-year process of data collection. I noted the messy interactive yet dynamic process involved in qualitative research (Bechofer, 1974; Bryman and Burgess, 1994). The adoption of a longitudinal perspective facilitated the evolving nature of the research and allowed for a sharpening of the focus particularly in the data analysis.

However, what kind of research is this and does it fall into any specific paradigm? In her review of research in geographical education, Slater (1995) notes that, " a very valuable hybrid research tradition is evolving, as theory and practice from different paradigms interact and 'talk' to each other" (p311). She does suggest that often a researcher decides what it is he/she wants to investigate, how this may be accomplished and from which paradigm approaches are chosen. This would be true of the present research, notwithstanding the changing focus.

Slater has identified four such paradigms in geographical educational research: scientific, interpretative, action and post-modern (Figure 11). In accepting this broad categorisation of research paradigms my work falls into the category of "interpretative". Both methodology and methods are taken in the main from this paradigm although elements from the others are evident within the research. Although rejecting the scientific paradigm the discussion on reliability and validity accepts some of the constructs from this area, particularly regarding the

Figure 11: Paradigms of research

Frame work	Aim	Methodology	Techniques
Scientific	To test relationships among variables, to understand interrelationships, to describe, explain, predict	Inductive or deductive, hypothesis formulation	Experimental, testing, pre test, post test formulae, hypothesis testing, observation and survey
Interpretative	To find meaning, to illuminate meaning in written and spoken accounts, past and present events and situations and interactions among people , to portray, to paint a picture	Anthropological, ethnographic, phenomenological, case study, context respecting	Observation, note taking, interviewing (structured and un structured, semi structured), conversation, diary keeping, illuminative descriptions, thick descriptions
Action	To effect an improvement by action within a situation alone or with others	Critical stance working within a situation	Acting, observing, refining and replanning
Post-modern	To highlight the 'constructedness' or contingency of knowledge, to draw attention to the hidden agendas of knowledge claims	Working within a situation, case study, ethnographic, critical stance, self reflexive, foregrounding of researcher subjectivity	Experiments with writing that blur the boundary between facts and fiction, textual analysis, collaborative research and collective authorship of research texts

(Slater, 1995, p297)

authenticity of the results and not making generalizations beyond the nature of the data.

The research could also be seen to have an action dimension as the findings could be interpreted in such a way as to improve my own teaching and those of others that might read this thesis. Also personal reflection throughout the research endeavour would have impacted on my teaching at the time although it is difficult to substantiate this. In terms of practical use, as already noted, the thesis concludes with a discussion as to how teachers may use the findings in developing their own and pupils' understanding of geography.

Although not conscious of this at the outset, I was taking a post-modern stance by getting the students to reflect on their own thoughts about their learning, and analysing the texts produced. Further textual analysis of various documents occurred in the production of the chapter describing the school. I have also taken a critical stance throughout the whole endeavour as indicated by my openness to modify the research, as the need required.

The decision to explicate in considerable detail the developing methodology, particularly in the area of data analysis, used in the present research supports the notion of the way in which the research focus evolved over time. Pragmatic as well as personal interests (looking for improvement in teaching and learning) have guided me throughout the research process, namely that my goal was to investigate pupils' perspectives rather than evaluate the impact of GNC.

The analysis of the findings of the present research, outlined in Chapters 7 and 8, is the result of the process of phenomenographic analysis detailed above. Before considering these, Chapter 5 provides a detailed description of the school setting which provided the context for pupil and teacher dialogue. It continues to acknowledge the longitudinal nature of the research by considering the major changes that occurred within the institution during the period of the

research. Chapter 6 follows this, providing a discussion of the issues facing staff in implementing GNC and the way it was undertaken within the department.

## **CHAPTER FIVE**

### **THE RESEARCH SETTING**

#### **Introduction**

The aim of this chapter is twofold; first, to describe the general setting and nature of the school in which the present research took place. This is to provide the reader with an understanding of the locational and socio-economic context of the research.

Secondly, to describe the institutional changes that occurred during the period of the research formulation and data collection (September 1990 to July 1994). This section illustrates the changing status and focus of the school that occurred within a short time period. It also describes issues pertinent to both staff and pupils.

Much of the information presented in this chapter was garnered from my own diary (a reflexive record of conversations, meetings and relevant issues) kept during the period of the research. School documents, such as the staff handbook, minutes of governor meetings, the annual report to parents, option booklets and other curriculum information was also an important source of data. Although having taught in the school for 15 years, as Ball suggests,

“what is offered here is an approximation to reality, an account derived from the experiences of a single researcher, with all the problems of selection, chance

and bias that it entails; an historical snapshot of an institution in the process of change" (1981, pxviii).

### **The social and physical setting of the school**

In common with many institutions, schools do not exist in isolation, "they are products of the past and of the social context in which they are located" (Burgess, 1983, p9). Hugh Christie Technology College (HCTC), as it is now known, is no different from any other school in this respect. During the period of this research HCTC underwent a number of fundamental changes described below.

The school is located to the northern end of Tonbridge in West Kent. Tonbridge is a small town of around 33,000 people that grew mainly in the 1950's and 60's due to the improved communication links with London facilitating efficient commuting. During this period of growth a number of new, mainly private housing estates were built to the north of the existing urban area. To cater for this growth HCTC was opened in 1957 in the centre of the new residential developments on the site of an old farm. The building of the school occurred in two main phases, first in the late 50's and early 60's, followed by an expansion in the 1970's.

The main block is a typical of a 1960's school, consisting of a two storey, L-shaped, flat roofed structure whose facade is dominated by glass. Classrooms are situated to one side of each corridor whilst on the other are offices, storage facilities and toilets. In 1990 this building housed the Headteacher, two deputies, the school offices, gymnasium and dining facilities and all the major departments except art, physical education, special needs and science.

As the roll of the school steadily increased a 'new block' was constructed consisting of a single storey rectangular building leading into a two-storey block incorporating art, science and the sixth form. At the same time a new sports hall was built on unused land adjacent to the playing fields. The school is technically on a split site as a public footpath separates the two main buildings.

When HCTC opened it was designated a secondary modern school and became part of the three-tier system of schooling which existed within West Kent at the time: grammar, technical and secondary modern schools. Kent did not adopt the change to comprehensive schooling, which commenced in 1965, although the three-tier system became a bi-partite system in Tonbridge. Of the six state schools present within the town, three are grammar schools and three of the secondary modern type. In the mid 1980's the local authority replaced the term secondary modern with High School, thus prior to the commencement of the research HCTC was known as the Hugh Christie High School.

Another unusual feature of secondary education in Tonbridge is that all the other secondary schools (including private ones) offer single sex education and until recently the two other High Schools catered for the 11-16 age range, only HCTC offers 11-18 co-education.

### **The changing school 1990-1994**

In this section the changes that occurred at the school during the period of the research will be described. Five main areas will be covered in varying detail: funding and status, whole school issues, staffing, pupils and curriculum. The latter leading into a consideration of the development of the geography curriculum during this period described in Chapter 6.

## **1. Funding and status**

In September 1990 the school had moved from the traditional control of the local education authority to one of 'local management'. In reality this meant the Headteacher and governors had greater control over the school finances, which in turn facilitated the improvement of the school infrastructure (as outlined below).

The notion of Grant Maintained Status (GMS) was also first mooted, with a local Headteacher and education authority representative visiting the school to discuss the implications of this change in and style of management.

During the next academic year (1991/92) the move towards GMS gathered pace with balloting of parents and staff both producing positive results, although not overwhelming majorities, in favour. As a result of this, the governors and senior staff decided to submit a proposal for Grant Maintained Status. Towards the end of the year, in relation to this submission, an HMI Inspector visited the school.

Grant Maintained Status was achieved in January 1993 with little related comment from the staff. For the governors the immediate issues related to their personal liability and obtaining insurance for the buildings and contents. As part of this new freedom, the governors commenced the process of reducing the admissions number from 258 to 200 (this however was not achieved until 1996 when the Funding Agency agreed a reduction to 210 pupils). They also desired 'wide ability status' (the Kent euphemism for comprehensive) for the school and initiated discussion of a grammar stream being admitted. This is still a live issue seven years later. The final issue regarding changing status did not occur until the change in Headteacher which is discussed in the next section.



## **2. Whole school issues**

The move to local management in 1990 allowed greater control over the school's budget and during this year a number of large scale developments were initiated. The first of these was the re-development of the technology area in line with National Curriculum changes. The governors initiated a proposal for a tennis court complex to be built in partnership with the town club and the Lawn Tennis Association. An outside business also enquired to the feasibility of leasing a piece of land on which to build a crèche.

The first ever school development plan (SDP) also appeared after discussion between the senior management team and governors. This illustrated the existing structure and highlighted the school's short and medium term objectives in ten categories. It did not note performance criteria, a time scale or identify who was responsible for achieving these objectives (Governor's Minutes, November 1990).

The main issues of 1991/92 were the continuing development of the technology infrastructure. The tennis court proposal initially rejected by the local council was given the go ahead by the Department of Environment, and was planned for completion the following year. Various areas of the school were renovated and the library redeveloped as a flexible learning centre. The marketing of the school became more prominent with, for the first time, a professionally produced, full colour, photo rich prospectus being circulated to feeder primary schools. To improve communication within the school a weekly staff bulletin was instigated as a vehicle to assist in the sharing of information.

In the autumn term of 1992 it was announced that the school would be having a full week, local authority inspection during the spring term. This became the catalyst for much activity in the departments particularly the production of necessary policies and related schemes of work and record keeping. The focus

of the inspection was to be the quality of learning in years 7-10, post-16 provision and a range of whole school issues. Although the visit produced the expected stress, the main findings were very encouraging. The inspectors noted that HCTC was a highly effective school with a strong sense of community and an exceptional level of pupil achievement. Commitment of staff and students was deemed to be high and relationships sound. Management was clearly defined and effective with the school development plan identifying the areas requiring attention. The inspectors report also identified areas for improvement including: the development of strategies to implement the issues in the SDP; delivery of an improved co-ordinated technology experience; enhancement of the practice of supporting pupils with special educational needs and meeting the regulations relating to the collective act of worship (Kent County Council, 1992).

Discussion also commenced as to whether the school should become involved in Initial Teacher Training (ITT) through links with Cambridge University. Marketing of the school continued to have a high profile with an increase of 60 pupils expected in a school role of 944 for the next academic year.

During 1992/93 various issues relating to school policies arose. Working parties produced a new code of behaviour and a revamped sex education policy. Being self-governing meant that Health and Safety became a greater priority, the middle management being involved in the production of a whole school policy. Drug awareness, for the first time, became a whole school issue with staff being given advice in this area and a policy produced.

In the summer term the local ITT consortium consolidated links with Cambridge University; maths, English, science and geography being the departments involved.

Towards the end of the academic year, John Patten, Secretary of State for Education visited the school. Although speaking mainly to students, a limited

number of staff had the opportunity to meet with him, presenting a letter criticising the constant changes to the National Curriculum and various concerns regarding SATs.

In the last few weeks of the term a pilot system of registration using optical marking was introduced in years 8 and 10. This to be implemented across the whole school in September 1993.

In early autumn, via a grant of £500,000, further improvements to science and technology were undertaken with four new laboratories and technology block built. These came into use in early 1994.

However, the most surprising news was the announcement of the Headteacher that he would be retiring at Christmas 1993. Interviews for the new Headteacher were held in July with the governors wishing to make an appointment of someone who would move the school in a new direction (personal communication). The Governors on the advice of the local senior advisor made a new appointment to commence in January 1994.

The commencement of the new Headship in January 1994 immediately brought change. Discussion in school re-focused on pupils and the curriculum and how 'standards' could be improved. Staff and pupils were involved in the development of a set of values, which everyone could work towards. The importance of achieving a good education and 'learning to succeed' was stressed. These values were painted on the walls in various prominent positions. The school also had a new logo designed in the shape of a rising sun to put across the idea of a new dawn.

In the spring of 1994, a large portion of the training budget remained and after gaining permission from the DES, the senior and middle management visited,

for the first time, examples of good practice in schools both within and outside the UK.

The new Headteacher also lobbied the Funding Agency to change the status of the school, achieving success in spring 1994 with the school changing its name to Hugh Christie Comprehensive. The Headteacher was interested in nurturing other sources of revenue and educational links. In the summer term an investigation into the benefits of the Technology Schools Initiative commenced plus linking the school with an American movement, the Coalition of Essential Schools (CES). Both of these initiatives became reality with the school obtaining Technology College status, changing its name once more, and being designated the first international member of the CES. As a condition of Technology College status, HCTC entered into various partnerships. Sponsorship was provided by ICL and Granada located a number of bulletin boards around the school. As a benefit for budgeting and staff the school became a corporate member of AMEX.

The renovation of the environment of the school also became paramount and a former pupil was employed to give each subject area a distinct image. The dining hall was slowly transformed into a large flexible learning centre equipped with the latest ICL computers. This reflected the philosophy of the new Headteacher in improving performance and developing the use of the new technologies.

### **3. Staffing issues**

In 1990/91 there were the equivalent of 58 full time staff, however due to a budget deficit seven redundancies were required. 'Natural wastage' alleviated the problem, however, two staff were made compulsory redundant. In contrast, at the same time a new Head of English was appointed. During this year

directed time was still a considerable concern for staff and they were issued with time sheets which directed them to various after school activities.

The following year, although pupil numbers had increased to 900 two fixed-term contracts were not renewed and there were numerous early retirements including the Head of Geography, which allowed for my promotion to this post. The curriculum deputy was also absent for a term causing a number of problems related to timetabling and option choices; as he was solely responsible for the administration of these areas. The notion of individual directed time was replaced with a meetings calendar.

In 1992/93 the pupil numbers increased about 5% and due to this 11 new staff were appointed. At this time there was no induction package and it was up to each department to mentor the new staff. Appraisal, using the national scheme, was introduced with both the senior and middle management team being trained to undertake the task. The role of the senior management team was modified to include key stage responsibility rather than whole school issues. This left no one in charge of Special Needs at the time when parent classroom assistants were introduced for the first time. GMS allowed some further restructuring with the Head of Sixth form retiring. Some staff during the year were delivering up to four National Curriculum subjects in Key Stage 3.

In the final year of the research a further seven staff were appointed as the pupil numbers increased to 969. As a result of the experiences the preceding year, a deputy was directed to produce an induction package for NQTs which was ready for the start of this year but varied in the level of its implementation across departments. All teachers were allocated an extra preparation period, this perhaps being the cause of a much more light-hearted feeling amongst staff during the autumn term.

After the appointment of the new Headteacher the staff were asked to focus on the general competencies required for effective teaching, the results being published as a guide for existing and new teachers. More general discussions were held on how staff, in their various teams, could work 'smarter rather than harder' although nothing concrete arose from this at the time.

#### **4. Pupil issues**

During the period of the present research very little occurred effecting the pupils that would not have occurred in most schools. As noted already over the four-year period the pupil numbers increased from 884 to 969. Interestingly during the same period, the number of statemented pupils increased from 22 to 47 and those receiving free school meals from 32 to 72 (HCTC Form 7, 1991:1994). The former reflected a growing concern amongst staff that the school was developing a reputation for teaching pupils with special needs. At the end of 1994 nearly one third of the pupils were identified at one of the four levels of special needs. As to be expected with increasing roles the examination performance also showed a steady increase at 16, with 25% of pupils gaining 5 GCSE A-C's in 1994, well above the average for similar schools in Kent (DFE, 1994). At A-level the pattern was more varied depending on entry figures, but throughout the four year period the pass rate varied between 75-90% (Annual Reports, n.d.).

At the commencement of the 1993/94 academic year, sponsorship was introduced for pupils with particular talents in performing arts and music. GMS facilitated this development and pupils were expected to attend after school sessions and be involved in productions. With the appointment of a new Headteacher a school council with subsidiary year councils was introduced. Their first tasks included the design of a new school logo and review of uniform as well as discussion of the new values being implemented. A number of

surveys were undertaken to garner the pupils' perspective on various issues ranging from catering through to homework. In many ways these were the first steps in an attempt to place the pupils at the centre of all that happened in the school and in the drive to increase standards.

## **5. Curriculum Changes**

During the four year period outlined above (except for the last two terms), the main changes occurred in the area of curriculum. As the research presented here covered Key Stage 3 most of the detailed discussion below will focus on this area rather than Key Stages 4 and 5.

In 1990/91 the curriculum structure was thirty fifty-minute periods each week. At Key Stage 3 each year was split into an upper and foundation band. In the upper band there was one top set and three mixed ability groups. At the foundation level a special needs class was created plus three classes of equal status. The allocation of pupils to classes being based on ability in maths and English as indicated by entry tests and primary school information.

During 1990/91 the National Curriculum core subjects were in their first year of being taught, with the foundation subjects gearing themselves for a September 1991 start. To cope with the changes in the curriculum the senior and middle management teams had formed a National Curriculum Development Group (NCDG) which facilitated the distribution of information and provided a forum for the discussion of issues.

Throughout 1990/91 profiling and portfolio development linked to the Record of Achievement was introduced. Departments viewed these with differing degrees of openness, some seeing them as a further imposition and increase in workload, others as a method of interpreting National Curriculum standards.

In terms of curriculum development, technology became the main subject area that required change as this had not been taught before in the school.

The issue of homework setting and marking arose during the year leading to staff having to complete record sheets for their respective head of department.

In the next year the structure of the curriculum and timetable remained the same. Foundation subjects commenced the teaching of their Orders. The Kent County Council inspection in terms of subjects gave the school a clean bill of health particularly in the way the National Curriculum had been introduced. However, technology and information technology were highlighted for further development particularly against the National Curriculum programmes of study. Interestingly although the NCDG group continued, except for the issue workload there was little open discussion about the National Curriculum (NCDG minutes).

1992/93 saw a number of changes. Although the basic structure of thirty fifty-minute periods remained in Key Stage 3 the two bands were removed with the classes being renamed S1-S7. These were structured, with a top set and then three equal bands of two classes. After three years of the core subjects it was decided that working parties looking at both Key Stage 3 and 4 were required. These consisted of a small group of who considered the whole curriculum. Each of these groups reported to the staff however the only change was a minor one in subject time.

Outside initiatives had a high profile towards the end of the year. The first set of national league tables was published and although the school compared favourably to other Kent secondary moderns, little internal discussion was engendered. The introduction of a SEN audit increased everyone's workload, as they had to produce examples of assisted and unassisted pupil's work for each subject. As this had budget implications it was a task that had to be undertaken thoroughly. Finally SATs were introduced, even though Union action meant they



were not completed in school the related changing of reporting in Year 9 had an effect on all the other years.

A grant was obtained for infrastructure developments in science and technology, with the latter still developing in terms of the content and mode of delivery. The sixth form curriculum was widened with the introduction of GNVQ's through a link to the local college who franchised two courses to the school. The first ROA for Year 11 pupils was completed and published. Homework again was an issue with all departments being reminded of the necessity to set and mark work regularly.

1993/94 again saw outside changes influencing the curriculum. In the sixth form the core of A and AS levels was being considered and GNVQ was introduced for the first time in the 14-16 curriculum. This meant subjects such as the humanities, that in the past were a single separate option group, were included with all the other subjects. Thus the number of pupils opting for these subjects declined considerably, for example geography numbers declined from 93 the year before to 56, whilst history dropped from 66 to 34. Concern was expressed over the balance of the curriculum for a number of pupils post-14, however this was countered by the argument that the pupils are consumers and therefore should be given as much choice as possible. Also, government advisors had stated that certain subjects, including geography, did not have to be studied after the end of Key Stage 3.

During 1993/94 Dearing undertook his review of the curriculum and this plus the appointment of a new Headteacher stimulated further discussion of the nature of curriculum development in the school. Of particular interest was smoothing the transfer of pupils from primary to secondary school, this being based on a CES idea that a single teacher should not teach more than 80 pupils in a week. Thus subject integration in year 7 was investigated although nothing concrete came of this initiative until September 1996.

The new Headteacher also commenced a discussion on the nature and use of technology within the school. He asked departments to produce development plans for the following year that concentrated on teaching and learning. This focused discussion on issues related to the curriculum: teaching and learning, assessment and recording, and raising standards which in September 1996 came to fruition in schemes of quality assurance and academic tutoring.

Thus, during the four-year period of data collection the researcher had to assimilate these changes which perhaps were greater in scope and speed than was expected at the outset. Although a number of the changes were imposed from outside, in particular the National Curriculum. The school itself, or senior management and governors, positively chose to implement the others as they saw this as a way to improve both the environment of the school and performance of its pupils, and hence its reputation locally. The various changes in the curriculum particularly to the structure of the classes were not conducive to the present research, although as outlined in Chapter 4, they were overcome. Being Head of Department patently assisted in this.

Departments during this period were expected to get on with the job of developing and implementing the National Curriculum, particularly as the majority had been given a clean bill of health by the county inspectorate. It is within this context that the present research was undertaken and Geography in the National Curriculum introduced. The next chapter discusses the strategies and procedures involved in this, and continues to illustrate the longitudinal nature of the research before summarising the pertinent issues which arose from this process.

## **CHAPTER SIX**

### **THE INTRODUCTION AND DEVELOPMENT OF GEOGRAPHY IN THE NATIONAL CURRICULUM 1990-1994**

This chapter begins with a descriptive chronological account of the implementation of Geography in the National Curriculum (GNC) at the school during the period 1990-1994, the first full cohort of pupils. The description provides a 'nuts and bolts' account of how the department approached the introduction and development of GNC. It also considers the philosophical stand taken by the department, practicalities relating to planning, assessment and recording as well as staffing issues.

This is followed by a reflective account of the main issues arising from the department's attempts to implement GNC. A summary of the main questions concerning the department is discussed under the headings staffing, curriculum planning and assessment.

The matrices (Figures 12-15) provide a chronological outline of the process involved in implementing Geography in the National Curriculum at Hugh Christie Technology College (HCTC). Between 1990-1994, there were a number of staff changes including the retirement of the incumbent Head of Department (HOD) and subsequent promotion of the second to this post. Two newly qualified staff were appointed in September 1992 and 1993 respectively and during the four year research period five non-specialists were also involved in the teaching of Key Stage 3. All personnel changes had an impact on the preparation and

delivery of Geography and these, along with the process of curriculum development, will be discussed in the commentary that now follows.

### **Preparatory year 1990/91 (Figure 12)**

Figure 12 outlines the major events in the year preceding the implementation of GNC. The major focus of 1990/91 was preparing the ground for a successful start in September 1991. This involved becoming familiar with the whole range of documentation available, deciding upon a philosophical position regarding the approach to Geography and constructing basic outlines needed for preparation.

During the autumn of 1990 both the Interim and Final Reports were evaluated. This developmental stage was the initial responsibility of the HOD and his second, as the non-specialists had other tasks to focus on. A number of conferences organised by the local education authority and 'Geographical Association had been attended to assist in this familiarisation process as well as to express our personal views (see Chapter 2). At one such conference in October, Rex Walford suggested that GNC was a 'workable curriculum' and that teachers should 'make the best of it' and remember that it is an entitlement and therefore a minimum provision.

The Final Report provided much discussion with the HOD being concerned that,

*"it removes the autonomy the department had. Also the effects of an increasingly knowledge based course on the pupils at HCTC, where skill retention following repeated practice would seem to be a more likely happening rather than knowledge retention, is a concern. The specified nature of the content seems to be inflexible, possibly nationalistic and it stresses place knowledge of fact rather than patterns of processes illustrated by cases."* (HOD, personal communication)

Figure 12: National Curriculum preparation year 1990/91

DATE	PROCESS	PEOPLE
Oct 90	Departmental discussion on NC: questions on approach/ review timing Consider INTERIM REPORT County course - R Walford	HOD 2nd HOD 2nd 2nd
Nov 90	Curriculum time for 91/92: geography 6.6% - department response	HOD 2nd
Dec 90	Analysis of 5-16 Final Report	2nd
Jan 91	HOD statement on 5-16 Final Report; discussion of NC philosophy; response to 5-16 Report via GA meeting Analysis of NCC document	HOD HOD 2nd 2nd
Feb 91	Analysis of Draft Orders West Kent teachers meeting on Draft Orders	2nd 2nd
Mar 91	Dept. meet - first in depth discussion, outline situation re structure of geog. NC	Dept.
Apr 91	KS3 planning document - fundamental questions about depts. approach to geog.	HOD 2nd
May 91	County Course - audit existing syllabus against Final Report: decision to start a fresh with year 7 - philosophical discussion on dept. approach to geog: adopt people-environment approach - using philosophical approach, breakdown into manageable units, develop guiding concepts for Years 7,8 and 9 - guiding concepts broken down into teaching modules - what will be the approach in modules? Enquiry approach adopted: practice approach at general planning level on one module	HOD 2nd
Jun 91	Dept. meeting to inform staff of framework and approach adopted Development of record sheet for SoA and AT First tentative discussions on assessment - how, when, timing, recording Style of scheme of work decided - matrix with 9 headings. Produce first SoW last 12/13 weeks - 4 guiding concepts develop from this. Link profile to this using SoA	Dept.  2nd Dept.  Dept.
Jul. 91	Production of final draft of unit 1 Our Environment Discussion of draft / amended - delegation of work preparation Discussion of assessment - production of profile, idea of levelness, method of recording, marking - grade criteria: pupil friendly approach	2nd Dept.

HOD - head of department    SoW - scheme of work

Attendance at local meetings continued with the NCC Report and Draft Orders being the main focus of debate. At the department level, discussion concerning what stage the process was at and what the next steps were was common. Local advisors had suggested that planning at the scheme of work and lesson level was futile until a clearer picture of the final Order was available.

Thus, the first departmental meeting, which discussed the 'nuts and bolts' of GNC, did not occur until March 1991. At this meeting the HOD outlined the detail of GNC regarding ATs, SoAs and profile components along with the places that had to be covered during the Key Stage. In April a brief document which focused on planning was circulated (Appendix E). This was followed by a county course 'Launching the National Curriculum at KS3', which provided the two departmental specialists with the time to audit existing provision, this clearly illustrating the need for a new framework at Key Stage 3. At A-level the 16-19 project was taught and it was decided that a people-environment approach to Key Stage 3 would be consistent with department philosophy. Within this framework four guiding concepts related to people's impact on the environment were developed. The rationale being that they must be intelligible to the pupils. The four guiding concepts were then broken down into further modules that covered the areas indicated in the PoS. We organised the framework (Appendix F) to allow for progression in three ways, familiar to unfamiliar, concrete to abstract and simple to multivariable. KS3 was then considered as a whole, and a decision taken that each unit did not have to be of equal length. The next step was to look at module planning in principle. An enquiry approach was adopted, as we believed that we had to teach all the pupils to think and using guiding questions would facilitate this. A framework for writing schemes of work was then constructed (Appendix G).

The next stage involved the drafting of some year 7 units to present to the department for discussion. This process involved creating the enquiry questions

for each of the modules identified in Year 7 and 8 followed by the completion of the rest of the framework a task shared between the two specialists.

The proposals were then presented to the rest of the department in June. During the rest of term, the first profiles were produced, essentially an audit of a scheme of work and the SoAs it covered. The idea of 'levelness' and using logbooks for recording achievement was also introduced.

Thus, at the end of the academic year staff were feeling confident that an approach in which to deliver GNC existed and they left for the summer vacation with the task of producing lesson plans and resources for the teaching of the new year 7 in September.

During the year a number of issues arose from the planning process:

- At the school level the structure of the curriculum meant geography was to be delivered in two fifty minutes periods per week or 6.6% of the timetable, somewhat less than the recommended 10% for foundation subjects.
- Non-specialists were particularly concerned at the perceived lack of time to deliver GNC.
- Concern was expressed as to how little the non-specialists knew about the basic structure of National Curriculum subjects.
- Non-specialists were also concerned at the lack of discrete mapwork, an area they felt confident in teaching.
- The assessment procedures appeared vague which again particularly concerned the non-specialists.

### **GNC the first year 1991/92 (Figure 13)**

The first year of GNC is outlined in Figure 13 with the major concern being the planning and preparation of teaching materials.

Due to a lack of preparation during the vacation, much of the first two development days were spent completing work for Unit 1. It was decided to use logbooks as an informal method of recording pupils' achievement, and the profile for recording SoAs was also completed (Appendix H).

Much of the autumn term was typified by informal discussion about progress with Year 7 and ongoing lesson preparation, as well as logbook completion and the use of the profiles to record SoA. This led to the first informal conversations about using general level criteria rather than trying to record every SoAs, which would mean an average of one per week over the whole key stage.

In December two INSET sessions were used to clarify the teaching and learning for the rest of unit 1 (The Home Region) particularly with reference to differentiation. Preparation for Unit 2, settlement, was started with various sections being delegated to staff.

At the start of the spring term we carefully studied the Welsh Non-Statutory Guidance which provided a justification for the depth of planning which we were involved in. This also led us to modify the second profile, which entailed an audit of the settlement unit to identify the most pertinent SoAs. These were then rewritten in pupil friendly language, a time consuming task. We also made the decision to exclude level 7 SoAs these being too difficult at this stage for our pupils.

Unfortunately, we were still not clear as how to assess the pupils via the SoAs. General levels appeared to be a way forward but contradicted the conciseness of the SoAs. Thus we decided to enter grades onto the profiles to indicate coverage and level of success. The first attempt at portfolio development was undertaken, each pupil being provided with a folder in which to place an example of their best work from the first unit. A pro-forma was produced so the



Figure 13: Geography in the National Curriculum Year 1

DATE	PROCESS	PEOPLE
Aug 91	Preparation of teaching material for unit 1 - ready for Baker Day	Dept.
Sept 91	Baker Day - not all work completed, spent 2nd day finishing unit Log books discussed, profile sheet developed	Dept.
Oct 91	Dept. meet brief discussion on Y7 Informal discussion	Dept.
Dec 91	Dept. meet - clarify rest of unit 1: timing, profiling, assessment discussed Devt. day - half on unit 1, half on settlement unit 2 Half day INSET - preparation of materials for unit 2	Dept.
Xmas 91	Prepare unit 2 teaching materials	Dept
Jan 92	Devt. day - develop profile for unit 2 Dept. meet Profiling / portfolios for all pupils at end of unit 1	Dept.
Mar 92	Dept. meet Half day INSET Half day INSET	Dept.
Apr 92	Devt. Day	Dept.
May 92	Dept. meet HOD announces early retirement Preparation of transport materials Profiling / portfolios for all pupils at end of unit 2	Dept. HOD 1GT
Jun 92	Dept. meet - discussion of unit 4 - economic activities Evaluation of SE for re write	Dept. HOD 2nd
Jul 92	Organise preparation of economic activities Profiling / portfolios for all pupils at end of unit 3	Dept.

Devt. Day - development day  
GT - geography teacher

pupils could explain why they had chosen this piece of work and indicate its level.

The rest of the term involved preparation of lesson materials and ongoing discussions regarding assessment. Another INSET session was instigated in March where the preparation of Unit 3 Transport was prioritised, the scheme of work already having been outlined. A report to the department from an assessment course generally supported the progress we were making in terms of assessment methods and recording.

On the penultimate day of the term the HOD informed me that he had seen the Headteacher about the possibility of early retirement. Generally he was dissatisfied with teaching and did not believe he achieved the response from the pupils that he used to, and also GCSE was not a challenge either for teachers or pupils. We discussed my position in terms of the department with both of us having one month to reflect on the situation.

The summer term commenced with the now standard meeting regarding preparation of materials and issues relating to assessment and recording. In May the HOD announced that he would be taking early retirement and I had two conversations/ interviews for the post to which I was appointed pending a review the following February.

The rest of the term involved planning unit outlines for next year. All profiling and portfolio updates were to be completed. The units taught to date were formally evaluated on a pro-forma provided by the prospective HOD in readiness for modification in the following year.

The issues facing the department were now becoming evident and focussed on specific areas:

- Staff were finding it difficult to meet deadlines in terms of preparation of lesson materials. The ideal of being a half term ahead was impossible to achieve.
- The present HOD expressed his own difficulties on keeping on top of all that he had to do (one of the reasons for his early retirement).
- The management of non-specialist staff was proving difficult in that some required considerable support in delivering the lesson materials.
- Assessment proved to be time consuming and particularly problematic for non-specialists. Deciding whether a pupil had achieved a specific SoA concerned them and assessment via tests was requested.
- The nested hierarchy of SoAs strengthened the view amongst the specialists that they were clumsily written with poor exemplars.

#### **GNC the second year 1992/93 (Figure 14)**

The second year of GNC (Figure 14) was one of continued planning, preparation but also consolidation. This year's staffing consisted of two specialists and three non-specialists, so the first action of the new HOD was to go through all that had already been completed in terms of process and product. The experienced non-specialist stressed the issue of time and we all agreed that pace in lessons was to be an important focus for this year, he also mentioned that certain processes have to become a habit particularly profiling. As HOD I also made the first attempt at writing general criteria for levels 2-6 and at the end of September used these for the first time to assess a piece of year 8 work.

A number of meetings in October focused on rewriting existing modules and planning of new units for next term. An attempt was made to focus on level 4 with exemplars of work so as to commence the development of a common understanding of standards across the department.

Much of this term I spent monitoring and supporting the staff to ensure they understood the work and were delivering the schemes of work as planned. This involved numerous individual meetings to discuss the minutiae of what was expected, and although time consuming proved more successful than whole department meetings for transmitting information.

Meetings were now following a similar pattern, a review of progress and issues related to this plus a session on planning the next unit. The use of general levels was steadily being introduced through exemplar work produced by pupils particularly in Year 8. By the spring term it was noticeable that the two specialists in the department were undertaking all the preparation with the non-specialists doing all they could to keep on top of the work through individual briefings. This prompted my discussions with a deputy about staffing and the need for another specialist.

Extra funds made available by the governors allowed the purchase of 5 different sets of textbooks that became instantly popular with the non-specialists. As an aid to this, I provided teachers' notes for guidance for each of the units. Towards the end of term the SEAC advice on assessment arrived, and after some discussion about the document, and at the request of the non-specialists, an end of unit test for two modules one in year 7 and 8 respectively was introduced. The SEAC advice proved useful in department deliberations and pointed to the fact that we were expecting too high a standard at levels 3-6<sup>6</sup>. Although there was concern that level descriptors may be needed for each attainment target.

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<sup>6</sup> The HOD had written general level statements for levels 2, 4 and 6 which were to be used across the range of ATs. This was done using the command words and exemplars provided. Departmental discussion surrounding this suggested that a substantial piece of work was required to achieve a specific level. The SCAA information appeared to suggest otherwise and also hinted that a separate general level statement may be required for each of the ATs required to achieve a specific level. The SCAA information appeared to suggest otherwise and also hinted that a separate general level statement may be required for each of the ATs.

Figure 14: Geography in the National Curriculum Year 2

DATE	PROCESS	PEOPLE
Aug 92	Prepare outline of unit 5 leisure: key questions and resources	NHOD
Sep 92	Devt. day - 1 hour discuss Y7 and 8 requirements Write general criteria for levels 2 - 6	Dept. NHOD
Oct 92	Dept. meet discuss Y7 and 8 work Economic activities 3rd section of unit NT write first draft SoW Discussion and amend, Write final version of 3rd section.  Discuss unit 5 leisure - share out preparation of materials  HOD look at unit 6 tourism - prepare brief outline Attempt level 4 general statement Preparation of unit 5 teaching materials	Dept. NT  NHOD NT  NHOD NT NHOD NHOD NT
Nov 92	Prepare detailed SoW unit 6 tourism Rewrite unit 1 Human section and distribute Unit 4 evaluation sheets hand out	NHOD
Dec 92	Dept. meet unit 6 SoW discussed, preparation of work delegated. Discussion of levelness Re write unit 2 settlement SoW Draft unit 7 SoW needed Y7 unit 1 and Y8 unit 5 evaluation sheets distributed Tourism profile written General level statements for levels 2, 4 and 6 produced	Dept.  NHOD NT Dept. NT NHOD
Jan 93	Rough draft of unit 7 energy SoW Discussion SoW unit 7 - delegation of work Redraft settlement unit 2 to staff Collect evaluation sheets Profiling / portfolios for all pupils at end of unit 1 and 4	NHOD Dept.
Feb 93	Review second half of unit 2 settlement - prepare notes on teaching for staff Energy teaching materials circulated Plan outline SoW unit 8 water NS staff member on maternity leave another NS take over Collect evaluations from staff	NHOD  Dept. NHOD  Dept.
Mar 93	Preparation of first section of unit 7 energy Dept. meet - discussion of unit 8 water SoW KS3 SEAC assessment advice arrives	NT Dept.

	Evaluation of tourism unit 5 Profiling / portfolios for all pupils at end of unit 4 and 5	Dept. Dept.
Apr 93	Unit 8 preparation of teaching materials Review transport unit 3 module - re write profile Settlement / energy test for all pupils SoA overview for Y8 to date Settlement test set Y7	Dept. NHOD Dept. NT NHOD
May 93	Continue unit 8 preparation Energy test for all Y8 pupils Profiling / portfolios for all pupils at end of unit 2 and 7 Evaluation of unit 2 and 7 Commence unit 3 and 8, transport and water	NHOD NT Dept. Dept. Dept.
Jun 93	Complete final section of unit preparation SoW re organised for 93/94 Appoint new member of staff	NHODNT NHOD NHOD
Jul 93	POS/ SoA audit for Y7 and 8 Review Y9 work -framework and units needed Assessment review INSET Prepare unit 9 Living on the Edge Profiling / portfolios for all pupils at end of unit 3 and 8 Evaluation of units 3 and 8 Review unit 1 and 4 for next year	NHOD Dept. Dept. NHOD Dept. Dept. Dept.

NHOD - new head of department

NT - new teacher

At the start of the summer term the first tests were implemented with varying success, questions that directly related to specific SoAs were more successful than those aimed at a general level response. It was evident that much work had to be put into this method of assessment. The rest of the term continued with preparation, planning, evaluation, profiling and portfolio updating.

In June a further specialist newly qualified teacher was appointed for September thus reducing the number of non-specialists needed to three. An INSET session focusing on the structure of Year 9 and assessment was held. A decision was made to simplify the portfolios by identifying the key 7-8 SoAs in each unit and then applying general level criteria to these i.e. what would be a level 4 response in a specific unit. By the end of the year the staffing problems had been eased, Year 7 and 8's work was in place for the following year, assessment had been simplified and the staff on the whole were much more confident in their delivery of GNC.

With the addition of a recently qualified teacher to the department the burden of preparation was eased, however a number of issues were still evident:

- In terms of assessment concern was expressed about the quantity and quality of work required for levelling.
- Assessing pupils' efforts as well as content so as to maintain motivation was discussed.
- The less able classes' ability to cope with the work being set focused our attention on differentiation at the lesson planning level. Attempts were made to introduce other forms of differentiation other than by outcome.
- It was becoming clear that although the non-specialists could cope, without the conceptual underpinning it was doubtful they could deliver GNC to a high standard. Using the enquiry approach with less able classes was of concern.

### **GNC the third year 1993/94 (Figure 15)**

The final year of the first cohort of GNC pupils commenced as usual with preparation of materials and the writing of schemes of work (Figure 15). The individual contact with non-specialists and newly qualified staff continued aided by the writing of notes for guidance.

All the staff were following the schemes of work provided and all but one were attempting the methods of assessment devised. Further end of unit tests were introduced in Year 9 where it was deemed the best method of assessment. The use of general levels was progressing via the writing of level statements to support general unit assessments - a decision having been made that each unit should have some form of reporting of the level each pupil achieved. The newly qualified teacher introduced his own pupil evaluation form so as to provide a picture of what the pupils thought about the work being undertaken.

In the second half of the term the second year specialist had his first attempt at writing a scheme of work, which the rest of the department then modified. An INSET session also took place with the aim of producing a departmental portfolio of exemplar work at the different levels from a variety of units. This proved to be successful with all the staff attending and a general idea of standards beginning to formulate amongst the department.

A list of departmental responsibilities was published in the hope that this would stimulate debate as to the need for a second in the department, although it garnered little response at this stage. The common pattern of preparation continued with the added ingredient of writing a general assessment for each unit so as to report the level and provide some evidence for pupil and department portfolios.



Figure 15: Geography in the National Curriculum Year 3

DATE	PROCESS	PEOPLE
Aug 93	Prepare Y9 SoW Prepare teaching materials for unit 9	HOD NT HOD
Sep 93	Dept. meet distribute work for unit 1, 4 and 9 Distribute profiles and portfolios Unit 10 JTTNW prepare SoW in detail	Dept.  HOD
Oct 93	Prepare final copy of JTTNW SoW Write test for unit 9 Living on the Edge Complete unit 9 test Evaluation of Unit 9 Living on the Edge Y7 and 8 units being taught	HOD HOD Dept. Dept.
Nov 93	Prepare SoW on countries INSET on assessment	NT Dept.
Dec 93	Complete unit 1,4 and 10 Prepare final copy of unit 11 country SoW Evaluate unit 1,4, 9,10 Rewrite unit 2 and 5	Dept. NT Dept. HOD
Jan 94	Rewrite unit 6 tourism, profile renew, decide on areas for general assessment task in units 2 and 5 Discuss Y9 work Around the World Review country unit France Start unit 2 and 5	Dept.  Dept. Dept.
Feb 94	Complete preparation of Y9 France unit Evaluate Y8 unit 5	Dept.
Mar 94	Rewrite unit 7 energy Discuss teaching and assessment of France unit	HOD NT Dept.
Apr 94	Rewrite transport unit 3 Evaluate Around the World unit 11 and unit 6 tourism	HOD Dept.
Jun 94	Write SoW India unit INSET - next Y7 mixed ability, assessment	HOD Dept.
Jul 94	Evaluate unit 3, 9, 12 and 13 - first pupil evaluation of unit 13 France Completed first cohort of KS3 NC Geography	HOD NT NT2 GT1

Spring term saw the need to cover the countries as indicated in the PoS. A different approach was developed in an attempt to avoid traditional regional geography. The department decided to apply the ideas of Mike Hughes (1991) and deliver the work on France and India using 'flexible learning'. This entailed the writing of a pupil booklet describing what was required and including general level statements for a variety of responses. Each unit was planned to last half a term and it was the first time we had explicitly made it clear to the pupils that they were responsible for their own learning and what level they could expect to achieve depending on outcome. This idea actually led to the first public exhibition of work by the year 9 pupils for the rest of the school.

For the second year in succession the governors released monies so that we could add to our base of textbooks which led to us replenishing some and adding new sets of others.

Late in the term I invited Hugh Ward the Kent Geography Inspector for a pre-Ofsted meeting which proved supportive in terms of the work we had already completed at Key Stage 3 but also in providing pointers for further development.

Late in the year I argued again for a reduction in the number of non-specialists and was able to appoint a third newly qualified teacher in as many years. My plans for a second in department were successful with the newly qualified teacher being appointed on a one-year contract with termly reviews.

Interestingly, although only in its third year GNC was to be reviewed with the major concerns being a flawed structure in terms of progression, choice and content overload. The latter point proving interesting as towards the end of each year we were now finding it difficult to complete all the work in a unit, as they had become more detailed after each evaluation. Although we finished the study of India in Year 9 the overall key stage plan was not completed, as we did

not undertake the global issues unit at the end which would have drawn the work together conceptually.

The final act of the third year of GNC was an INSET session which focused on differentiation in mixed ability groupings which were to be introduced from the following September in Year 7. Also a decision was made to disband the use of pupil portfolios and concentrate on the development of a departmental one, updated on a regular basis, so as to reduce some of the bureaucracy<sup>7</sup>.

Having three specialist staff in the department and hence reducing the number of non-specialists had in turn reduced the number of issues faced in the final year. The evaluation of schemes of work and development of assessment procedures via INSET had lead to a consolidation of the work undertaken by the department. Issues thus were now becoming specific:

- A lack of motivation amongst the less able classes was still evident, this again leading to discussion about our expectations and the relevance of some of the work we were expecting them to do.
- Parental input into the work by some pupils was a concern of some staff.
- Lesson pace throughout a whole unit was a concern particularly as we did not complete our Key Stage plan. It was hoped that this could be addressed via the formal departmental evaluation of the schemes of work.
- One specific non-specialist was causing concern due to the apparent inability to follow what was being requested. The appointment of a third NQT for September was to solve this problem.

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<sup>7</sup> This decision pre-empted advice from SCAA by some considerable time. It had become evident that to manage a portfolio of exemplar work for all pupils across the range of ATs was a bureaucratic exercise that offered little in terms of improving learning or developing staff understanding of general level standards. The decision to develop a common departmental portfolio built on existing good practice from GCSE coursework moderation that involved all staff in discussion of standards.

## **GNC and the issues of implementation**

The second section of this chapter provides a discussion of the main issues faced by the department in implementing GNC. Many of the issues faced at HCTC were common throughout the country (Burden, 1992; Fry and Schofield, 1993; Roberts, 1995) and will be considered under three headings: staffing, curriculum planning and assessment.

### **1. Staffing**

During the period covered by the present research, nine staff at HCTC were involved in implementing and delivering GNC. Generally the staff were in favour of a National Curriculum with certain reservations,

*"it is useful if one moves around the country and in this way it helps the pupils. But I am not sure we all should focus on exactly the same thing...there should be a core that all study but some allowance for flexibility." (T1)<sup>8</sup>*

*"I am in favour of a National Curriculum, as it was becoming obvious there were so many things people were doing, there was great difficulty in going from one area to another or defining what content was. A core curriculum idea was needed, what constitutes a body of information that children should know." (T2)*

However when it came specifically to GNC members of the department were concerned that,

*"I think that the document treats the subject in a series of compartments and sets out individual things people are supposed to do. It doesn't throw things together, it leaves the individual to do this but it is extremely difficult. It*

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<sup>8</sup> T1,T2 etc. is the code used to indicate the geography teachers interviewed during the present research

*encourages people to see it as a series of compartments, not as a subject."*  
(T2)

*"I am concerned about the over prescriptiveness, content coverage is the problem, there is too much content."* (T3)

Notwithstanding these views, the department knew it had no choice but to work with what had been presented. Even before the document had been translated into a teaching scheme, concern was expressed over the use of non-specialists in delivering a highly specialised course. As the original Head of Department stated one year into the new course,

*"this is a major concern, there are real problems because of the lack of knowledge. The non-specialists work well with the children but they do not understand the document so will lack self-confidence. Also, there is the putting across of the work. I do not think there will be originality in putting over the work, teachers will tend to fall back on comprehension, copying and drawing. Improving this can only be achieved by spending time with these people."* (T2)

One of the non-specialists was clearly aware of the problems but saw a positive outcome,

*"I don't know a lot about GNC but I've never spent so much time marking and preparing, that shocked me. I even phoned the Head of Department on a Sunday to talk about how to teach it. This has helped improve my teaching and made me feel more confident."* (T4)

Whilst another highlighted a problem that permeated all the issues related to GNC,

*"bureaucracy...all the paperwork, finding time to look through all the documentation to get used to the structure is difficult with all my other*

*responsibilities. Also the degree of planning involved is alien to me, I am running like hell just to keep up." (T1)*

My concern as recorded in the second year of GNC was that,

*"if the non-specialists do not have specialist knowledge or perhaps more importantly the conceptual knowledge that underpins the subject, how can they successfully teach GNC? They can cope, but to teach and assess successfully is a different matter altogether. The department has a framework and an enquiry based approach to learning, the bottom line is to get the kids to think - it is this understanding that is crucial for staff not the knowledge. They can learn the knowledge but this is not enough." (T6)*

These issues, plus the early retirement of the Head of Department, led to a concerted effort on my part to get the non-specialists replaced. By the end of the first Key Stage cohort this had been achieved, the benefit being,

*"as an NQT I am coming into the profession as the National Curriculum is developing so I know no difference, it must be very difficult for existing teachers to change the way they work." (T5)*

However, five non-specialists were involved in teaching GNC during its first three years and as my diaries at the time recount the most suitable way of dealing with this was through individual meetings to discuss specific elements of the work. But as I recorded at one stage,

*"the continual individual meetings, although beneficial for the staff and hopefully the pupils, are becoming somewhat frustrating as I feel I am teaching the teachers the content and how to teach it. Somehow there has to be a more efficient approach or only specialists should be used" (T6)*

At the time the non-specialists, due to their main responsibilities, were not fully involved in the GNC from the outset and this was clearly a mistake as they missed out on the philosophical discussions appertaining to the initial structure and development of our curriculum planning to which I now turn.

## **2. Curriculum planning**

The process of curriculum planning has already been outlined in the first section of this chapter. However, various issues related to planning difficulties were of concern to the department, in particular those related to learning and time.

As noted above, the two specialists in the department were involved in discussing the philosophical basis of the department's approach to curriculum planning. As the original Head of Department stated,

*"I think the question that was asked at the beginning was the key: what is geography? I knew what I wanted at that stage but I don't know that I've answered it... I thought this is what I have to do and set about doing it. But it is very difficult to achieve consistently through a long-standing piece of work. It's the way that we approach what we are doing that is important, a mental approach to thinking about what to do with the children, what and how to teach them and to get as near to this as possible. It made us think about lower school geography, we haven't done that for some time, it stimulated debate and that is a good thing" (T2)*

Thus, at the outset the two most important questions were, what is geography and how do we approach the teaching of this? These questions manifested themselves in the development of an enquiry based people-environment approach to the subject. This in turn was translated into a planning framework for the whole Key Stage (Appendix F) and individual schemes of work (Appendices G and I) which followed the advice of Rawling (1992) rather than

Edwards (1992). The schemes of work were written and resourced by the specialists which was appreciated by the non-specialist,

*"preparation is super, all structured, laid out, anybody could come in and pick up any lesson at any stage." (T4)*

However, this masked a number of concerns in the teaching of the schemes. The first related to the lack of flexibility,

*"I'm afraid to veer away from what I am doing, I am always chasing to finish." (T4)*

*"I often fall between two stools, the work does not let me go off at a tangent even if the pupils are interested. This is to do with time and lesson preparation which I haven't got right yet." (T1)*

As the first NQT noted,

*"the curriculum needs to be as topical as is possible so as to interest the pupils, you should have the flexibility to change places to study when necessary." (T3)*

This concern with flexibility was also linked to differentiation that should have occurred at the lesson planning level. Non-specialists in particular had problems with this, as identified by the Head of Department,

*"preparing their own lessons will be very difficult for them, yes they have the scheme of work but how they will cope with the SoA will be very interesting." (T2)*

Also,



*"there has been a problem of the work been way above some of my students' heads. I'm not getting through the work, not being experienced I haven't quite found the pace my classes should be working at." (T4)*

Interestingly, differentiation also failed to become part of the larger national debate surrounding implementation of GNC, yet as Fry and Schofield suggested,

*"it is difficult to see how National Curriculum Geography in its present form can be taught without a high degree of individualised work being set... It may be that because content changes with level differentiation by task will replace the more familiar differentiation by outcome. Such issues have very serious implications for the type of teaching and learning that will be possible in geography." (1993, p32)*

In an attempt to overcome the planning problem the department instigated the individual conversation with staff. Also resources were planned at different levels of difficulty this in turn putting more pressure on the specialists, but I was adamant that,

*"the staff have to prepare their own lessons, there are 'off the shelf' resource packs but they still have to decide how to use these units, otherwise I may as well teach the classes. My role is to manage the process and ensure that they have a number of strategies from which to choose." (T6)*

However, I started to write teacher guides to the units which suggested ways of delivering the work and explaining what I thought were the difficult concepts. This still required the staff to make professional judgements but aided in their lesson preparation.

Time was the second major concern and has already been hinted at above in terms of lesson pace. Nationally, commentators were discussing time in relation

to the number of lessons required to deliver GNC (Hewitt, 1991; Daugherty and Lambert, 1993). With Roberts suggesting that on the eve of the National Curriculum, "schools, at present, only allocate only half the time recommended for geography" (1991, p336). At HCTC as already mentioned geography had 5% of curriculum time that caused problems in completing units within both a year and Key Stage. The original Head of Department perceived two general problems relating to time,

*"I am concerned about the pressure to complete tasks produced by the new curriculum and wonder whether we can sustain the drive and revisit work. Also, we should not lose sight of the demands of other courses such as GCSE development and cross curricular links through spending too much time on GNC." (T2)*

At the practical day to day level, *"there is very limited time to provide more than an outline for the non-specialists and as a result coverage is not what it might be" (T2)*. My own diaries frequently note the issue of time particularly as related to me by the non-specialists in their attempts to complete the units,

*"there is without doubt a perception that we have less time to cover all the work. Lessons are undertaken at an incessant pace and as such are becoming more teacher dominated so as to ensure the content is covered." (T6)*

A discussion, recorded in my diary, of part of a meeting towards the end of the first year of GNC summarises the problem the department faced,

*"T2 reminded T4 that he had work to prepare. T4 responded that he remembered the work outline but at the moment he was producing one lesson at a time and could not cope with looking too much into the future. T6 stated that the transport unit had to be finished by the end of the year. Both T2 and T4 suggested that in 7 weeks this was impossible. T6 replied that the work would have to be edited and that we should aim to complete four units a year*

*otherwise we would never finish the course. T4 asked if he still should prepare last part of settlement even if the time was tight. T2 replied in the affirmative."*

However, even though during the three-year period the non-specialists were gradually replaced, the issue of time did not disappear. Off site in-service training sessions were used to aid preparation and stimulate discussion and on the whole were successful. Thus time became less of a concern in terms of curriculum development but manifested itself in the final major area of concern to the department, that of assessment.

### **3. Assessment**

A crucial element in the learning of geography, and the overriding concern of the department once the first unit had been planned, was that of assessment and recording. Nationally considerable debate was generated focusing on the questions of what, when and how to assess. Guidance was offered from various sources (Balderstone and Lambert, 1992; Daugherty, 1992; SEAC, 1992) in an attempt to assist teachers with the issues surrounding assessment. Daugherty (1992) suggested that, as with all National Curriculum planning, assessment should also start with the PoS and the content or skills to be assessed should be part of the schemes of work. Other authors noted the "sheer quantity of material" (Pierce, 1992, p117) to assess and stated that they had, "no intention of trying to assess every SoA in our Key Stage 3 course. Rather we are looking towards quality assessment of selected statements across the levels and across the attainment targets" (Slater, 1993, p80). As GNC developed Lambert and Daugherty (1993) reported the increase use of tests and Hawkey (1993) suggested that to assess every SoA would require coverage of at least one every second lesson. Thus advice shifted towards how assessment could be undertaken (Butt and Lambert, 1993; Slater, 1993; Dowgill, 1994) with Balderstone and Lambert (1993) suggesting four touchstones to consider when

developing assessment schemes: fitness for purpose, validity, reliability and manageability. Although in reporting the views of a number of schools, Daugherty and Lambert (1993) conclude that the style of assessment will ultimately be influenced by the format of the end of Key Stage tests with the subsequent loss of variety in teacher assessment.

During this period the main concerns at HCTC focussed on two areas: how did we know when a student had achieved something and how was this recorded? The approach taken to assessment at HCTC has been reported in detail elsewhere (Dowgill, 1994), however initially the Head of Department summarised the problem we faced,

*"looking at what the kids have done over the year, although one can mark and grade it, the decision about whether they have achieved a certain statement is extremely difficult. The problem is what level of difficulty to set and what quality is required in the answer. Also, assuming the SoAs are what we must cover then there is no time to do anything but that. "* (T2)

As a non-specialist put it, *"how do I know what their understanding is?"* (T4). In an attempt to solve this problem, the department audited each scheme of work against the SoAs and attempted to record individual pupil performance against these. This, however, created another problem that of recording. For the non-specialist the, *"profiles are too complex, as yet we have not found a good way to record how well the pupils are doing"* (T4). For the Head of Department,

*"linking work to assessment is not clear, it is difficult to keep up with profiling, some of it is retrospective, some won't be done...the pupils don't see how the work links to the profiles because they don't have the same heading."* (T2)

A further area of concern caused by the focus on SoA was that the standard of work we believed necessary to achieve certain levels was causing a problem with certain classes. As noted by a non-specialist, *"some kids cannot cope with*

*pen and paper, they do better if they speak, they can prove they have learnt it, but how do I assess this?" (T3). Also the Head of Department was, "concerned at reaffirming failure, I get round this by not putting a grade but just using a comment so some pupils do not get a procession of poor grades" (T2).*

Towards the end of 1992 the Head of Department saw GNC as

*"a document on assessment, all the things here the kids have to do and frankly I don't see the point. I don't think it makes them better at geography because they've got all these statements, it doesn't help them remember what they have done, it's largely a paper exercise." (T2)*

At the start of the second year of GNC a priority was to simplify the assessment procedures. This was achieved by editing the profiles and limiting the number of SoAs to 8 per unit. Also a decision was made to attempt to develop general level criteria (Dowgill, 1994) so as to ease the 'SoA chase'. By February 1993 all staff in the department had made an attempt to assess using general criteria. One non-specialist claimed that he preferred to assess in this way, but the problem was that the pupils did not write enough so did not achieve higher than level 3. The question he then posed was how could we improve their learning so as to improve standards. In an attempt to assist I provided exemplars of work produced by pupils at different levels. However, in March 1993 my diary reflected the concerns I held,

*"once again the non-specialist does not have the general grounding in assessment. Comments related to the amount of work completed by pupils suggested they are basing judgements on their own school experiences. Providing examples of work at level 3 and 4 helped but they were all 2-3 sides in length taken from the top set so do they help? Also I have noticed that marking to levels takes much longer, up to 2 hours for 25 books. Also pupil understanding of levels is a big issue. My conversations with them suggest they*

*know very little, so what do they mean to them? What does it mean if they are constantly level 2 or 3?" (T6)*

This again brought to the fore the question of motivating the pupils and ensuring that they were learning the work being set.

During the next twelve months the development of assessment was a slow and at times difficult process. However, increased use of general level criteria rather than assessing specific SoA became the norm. Meetings started to discuss in more detail the meaning of standards with regard to specific levels for units of work. Attempts were made to provide simple marking criteria for the pupils so they had some idea how and what they were being assessed on. By the end of the third year of GNC the department was in the position to produce a general portfolio with examples of pupils' work at levels 1-6. This moderation and standardisation proved very useful in clarifying the requirements for each level. As the move nationally was towards using general level criteria as opposed to assessing individual SoAs, the evolution of its assessment policy undertaken by the department was justified.

Throughout the first three years of GNC two fundamental questions were never far from the thoughts of the departmental staff and were frequently alluded to in meetings. The first of these related to the initial important question, that is, what is geography? This question was evident in discussions with non-specialists on the content of what was to be taught. How this content was structured, delivered and assessed related to the second and more openly discussed question, that of learning in geography. Attempts to develop a clear and common understanding of both these questions would have perhaps made the implementation of GNC less problematic and led to greater teamwork with less reliance on the specialists. However, finding the time to discuss what some possibly saw as philosophical questions, when there were the practical day to day issues to be dealt with, would have been problematic. Knowing individual

opinions about these questions would I believe assist curriculum planning and development, and it is pupil responses to such questions that Chapter 7 and 8 now consider.

## **CHAPTER SEVEN**

### **RESEARCH FINDINGS 1**

#### **Conceptions of geography**

This chapter will consider the researcher's attempt, through description, to formalise his understandings of the conceptions of geography as revealed through the analysis of the data using the phenomenographic approach (Chapter 4). The conceptions will be considered for each of the three years of the data collection in an attempt to identify both qualitative and quantitative changes and produce an outcome space. The outcome space being the extent to which the respondents thoughts ranged or the whole set of categories of description

Throughout this and the next chapter it is evident that there is more data related to year 9 than the two preceding years. This is due to the fact that all the pupils were interviewed at the end of the Key Stage. Also, as they were older I had an expectation that they could produce more, this being based on their recent experience of geography and the fact that they were also now used to the process of data collection and were more confident in expressing their views.

In Chapter 7 and 8, the most evocative quotes have been chosen to represent the categories of description<sup>9</sup>, the other relevant pupil statements are to be found in Appendices J and K.

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<sup>9</sup> Any minor grammatical errors found in the pupil quotes have been amended.



Study of the data revealed three main conceptions of geography:

- 1. A traditional conception of geography**
- 2. An applied conception of geography**
- 3. An idealistic conception of geography**

Within the first two conceptions, distinct sub-conceptions were identified on the grounds of their meaning (the referential aspect) and in the way they are organised (the structural aspect).

### **Year seven conceptions**

From the analysis of the data two conceptions were recognised in year 7:

- **the traditional conception of geography**
- **an applied conception of geography**

In the traditional conception, geography has a clear academic focus concentrating on the interactions and interrelationships between people and their environment particularly through the study of place (Gerber, n.d.). Places are studied through the acquisition of knowledge that is constructed as facts and concepts both physical and human, and development of skills particularly mapwork. The range of places illustrated is of a concentric nature from the simple/ small e.g. local, through to the more complex/ large e.g. global. It also focuses on the interrelationships between people and environment, which is exemplified with reference to processes present in the physical and human environments and to the concept of change. This element includes people-environment and people-people relationships.

Within this general conception two distinct sub-conceptions were identified:

- 1. geography as the study of place based on factual knowledge**
- 2. geography as the study of relationships between people and the environment**

The second conception identified in year 7 may be termed the **applied conception**. This involves the study of geography as it manifests itself in a series of issues and in the way the pupils investigate these. A practical approach is involved which either follows, in a simplistic way, the scientific mode of enquiry or uses a form of inquiry based on questions such as what, where, why and how? This differs from the traditional conception as it suggests the study of geography is more practical, (rather than accumulating knowledge for knowledge sake) and it has a usefulness to people (in this case the pupils). Places, processes, concepts and generalisations are still evident, however, these form the basis underpinning the major area of study i.e. the issue or problem. Relationships are also still evident in this approach and again they are the underpinning rather than the main focus for study. The **applied conception** in year 7 had one distinct sub-conception:

- 1. a systematic approach to the study of issues**

### **Year eight conceptions**

In this year both the **traditional** and **applied conceptions** of geography were present in the data set. In the former both of the sub-conceptions were identified, whilst the systematic approach was evident in the applied conception.

## **Year nine conceptions**

In Year 9 both the **traditional** and **applied conceptions** were identified. In the **applied conception**, however, a second distinct sub-conception was recognised:

### **2. a personal approach to geography**

A third conception was discovered from the transcripts in year 9, one that I have termed the **idealistic conception of geography**. This conception is typified through meta questions, often environmentally based, about the planet and the effect people are having upon it, as well as the consequence of these actions, now and in the future. There is a degree of personal feeling towards what is happening and an element of concern illustrated. The study of issues, concepts, processes is subsumed with the individual wishing to consider the 'bigger' question.

## **Categories of description**

The categories for each conception and the sub-conception are presented below.

### **1. Conception A: the traditional view of geography**

#### **1a. Sub-conception 1: geography as the study of place based on factual knowledge**

This traditional view of geography was popular throughout the three years.

At its simplest level for Year 7 pupils' geography is the study of countries/ places with no reference being made to any constituent elements:

*... Different places and countries...learning about them (7.3)...*

*... Geography is about places and the Earth (7.4)...*

*... About different countries in the world (7.6)...*

*... The question is quite hard, I think geography is about everything but it is mainly about countries (7.24)...*

A number of year 8 pupils still held this view, although some now related the study to named places and related this to the use of maps:

*... Geography is about countries, cities and maps (8.17)...*

*... Geography is about the planet and countries and places. It is also about landmarks like the Golden Gate Bridge and Statue of Liberty (8.9)...*

*... Geography is learning about different countries in the world and towns like Tonbridge and Sevenoaks and cities like London and parts of Britain and other countries. It is also about maps, maps of the world and different maps of other countries (8.10)...*

In Year 9 the view was still predominant with quotes referring to similar points:

*... You not only use geography for maps and countries, places etc. but also to find out about tourist places and rivers like year 8 (9.10)...*

*... We have to learn about rocks, the world, climate etc. It is different because you learn about the world. You need to know about countries and important world places (9.16)...*

*... You look at places and look at what their about and what activities are there...countries and cities, also the population...we've got to know where places are and what they are like (9.28)...*

*... Its about learning different countries of the world and learning how to draw maps and map reading... where they all are and where to find them. (9.48)...*

*... Its about learning the world, different places, all different areas and you do map reading. Its interesting because if you go on trips you like, know where they are and everything and you know a lot about it (9.52)...*

Certain individuals expanded upon this view by referring to an encyclopaedic approach to the study of countries. They saw the subject knowledge studied in the form of a discrete series of topics often related to the countries. This related to traditional regional geography with the major focus on knowledge, for example:

*... Geography is about most things ...countries, nature, people, homes, cars and other things (7.1)...*

*... Lists of places...countries, climate, terrain, people, culture (7.15)...*

*... Geography is about maps, towns, cities, countries, places, people and other things (7.25)...*

*... Geography is all about the different countries of the world...hills, mountains, rivers, rocks, population, towns, cities and regions (7.34)...*

This view was even more predominant in Year 8 with similar lists being produced but also reference to the volume of knowledge involved:

*... Geography is about lists of things, different countries, landscapes and the types of land and rocks (8.7)...*

*... Geography is about the planet we live on, communication, seascape, landscape, settlement, rock formation, towns, soils and much more, I could go on forever (8.3)...*

*... Geography is about lots of things, maps, countries, weather, towns and people (8.19)...*

However, in Year 9 only one comment of this nature was forthcoming:

*... It's sort of like about the countries, tell us about the countries, how to and what energy resources are and things like that, population and volcanoes and things like that (9.49)...*

A few Year 7 pupils mentioned to the basic factual nature of the subject when studying countries:

*... Geography is about countries and facts of the world - how far it is to them, how long it takes to get there. What's happening in the world? (7.11)...*

*... Knowing different places and helping you where you are and telling you all about what these places are actually like (7.13)...*

Although there were no comments made in Year 8 relating to this aspect of the sub-conception, in Year 9 a few detailed quotes were made, referring to specific facts and knowledge of various features:

*... It will help me if I want to know where a place is or if I want to know how high a mountain is... I might get these sort of questions in an exam paper (9.4)...*

*... It's to do with general knowledge, like population of countries and how the economics of each country works etc. Geography is a study of the world, knowledge of the world and the countries that surround us and their populations*

*and economies. Also knowledge of the resources on the earth's surface and underground (9.31)...*

*... Learning about the world... Where countries are and everything... Where they are and how many people live there, how big it is. You don't seem to learn about the world in other subjects or how to read maps... I've learnt about different countries (9.39)...*

*... Geography was just capitals and population and stuff, at secondary school you find out its about tourism and pedestrianising Tonbridge High Street... I think geography is just about places, landscapes, rock formations and things like that, capitals, population, imports and exports...a subject about facts (9.67)...*

One pupil made the distinction between the traditional physical and human approach to the subject:

*... When we did work on places in the South East this was physical geography, all work on rocks is physical. Climate and weather is physical so is the stream work. The work we did on human background is human geography. Human geography is about people, population, towns and cities. Physical geography is world countries, features of them, mountains, rivers, rock formation (7.3)...*

One statement recognising the distinction between various elements of geography was made, this also adding a third category, with an attempt to define geography as well as making an inference to process:

*... Geography is about the earth's surface and countries. It is split into two sections. Physical geography is about the landforms and climates. Human geography is about activities of the people. There is also biogeography, which we haven't done - about the conditions that affect the animals and the plants (8.32)...*

Others also mentioned the physical aspect of the subject with study focusing on specific features:

*... Studies of the land and sea - learn about countries, animals about crops and oceans. The land structures...rivers and oceans, the actual make up of the earth (7.5)...*

*... About maps, the world as well as landscapes, rivers, streams, rocks mountains and that kind of stuff (7.9)...*

*... Geography means the rocks under the ground, landscapes, where rivers flow (7.28)...*

*... Geography has to be about different countries...it has got something to do with the place where we live and its background like climate, relief and geology (7.35)...*

This view was also present in Year 8 but in a way, in a simpler format although similar areas of study were recognised:

*... Geography is about types of rock, places, the shape of the land and areas (8.15)...*

*... Geography is about relief, geology, climate (8.31)...*

*... Something about the landscape...rocks and stones, fields and grassland (8.33)...*

In Year 9, the view of physical geography was typified often by vague reference as to what is studied. No evidence of a systematic approach to this facet of the subject was mentioned:



*... We can learn about different places and the atmosphere and all that and you can learn about different rock forms and stuff...there's a lot more to it you learn load of different things, instead of sticking to one thing, like countries to small plants and stuff (9.36)...*

*... Landscapes, learning about the world, mountains, hills, learning the country...other countries. Fieldtrips, going out we don't do that much about going into detail about streams and rivers in other subjects (9.45)...*

*... Its about volcanoes and earthquakes and things that happen to the Earth...what its made of (9.54)...*

While a limited number mentioned the study of the human elements:

*... Geography is about population and all the things about that (7.9)...*

*... People of the world, countries and states (7.14)...*

Only two specific references were made to the human element in Year 8, however these built upon the comments from Year 7 being more detailed in content:

*... A subject on towns, people, transport and all things around the world...also the new ways of water, electric and recycling (8.29)...*

*... It can mean a lot of things like what energies we use, where places are, how long it takes to get to them, what ships and ports, what transport is used (8.48)...*

Again in Year 9 comments followed a similar vein:

*... Housing and populations and things...you learn about what people live their and how many, about the country...geography is like more modern (9.62)...*

*... Geography gives you a taste of what it its like for the future I didn't expect it to be things like tourism, I didn't consider that part of geography (9.67)...*

*... Learning about the world, the community...food, economical things, agriculture, types of people (9.74)...*

*... You find out more about countries, population and that and most important industries (9.79)...*

A series of quotes from Year 9 pupils summarises clearly the view of this sub-conception with the focus being directed to the knowledge base of the subject:

*... It's to do with general knowledge, like population of countries and how the economics of each country works etc. Geography is a study of the world, knowledge of the world and the countries that surround us and their populations and economies. Also knowledge of the resources on the earth's surface and underground (9.31)...*

*... It is an understanding of places and countries...it gives you a basic knowledge of different places and your own country and natural features...you get to know a lot more about them. (9.33)...*

*... To give you a knowledge of other countries and like the world in general...it just sort of expands your knowledge of the world. In some ways its more practical than other subjects, like field trips these given you more of an idea, you can learn about all those different places (9.37)...*

### **1b. Sub-conception 2: geography as the study of relationships**

This second sub-conception focuses on the people-environment concept. Three types of relationships are identified; people-environment, people-people and environment-environment.

At the simplest level this was typified by a recognised link between the earth and people:

*... People and the things they do on the land (7.6)...*

*... What's happening in the world (7.11)...*

*... What we do on earth (7.22)...*

In Year 7 only a limited number of statements alluded to the people-environment relationship usually making reference to vague problems or impacts:

*... What impact humans have had on the land (7.13)...*

*... How people live on the land and the problems on Earth (7.36)...*

*... What man has done to the world (7.38)...*

Whilst in Year 8 the statements become somewhat more complex and specific sometimes relating to specific geographical factors:

*... What goes on in the world and how to get things like 'limestone and coal...how farmers stop soil erosion and things like that (8.35)...*

*... Finding about rocks, about the Earth and the world and how we are changing it, the scientific side, also the buildings and how where changing them... geography tells you the basics of what science has done to he landscape. We also did the water cycle in science, geography starts saying where the water goes...science doesn't go into as much depth...in geography we do like the human factors (8.53)...*

*... Loads of things, I used to think it was just about maps and stuff and then I found out it involved business and economics as well as all the technical land*

*features, loads of environmental issues and problems you have to cover as well as er...I don't know how to describe it, just loads of issues and problems of different places...but its still about what the land type is, where the sort of land type can be found and what its good and bad points are. When we did the water cycle it wasn't as detailed as we did it in geography...in geography we found out how you can tell which way a river flows, how to describe it, the way it flows underground (8.54)...*

Year 9 comments continued in similar vein:

*... It helps us understand about the world and the places in it and how the Earth was made...I mean our environment, the world, the Earth we live on, like trees help us breathe, snow is water. Geography shows you more about your own environment from the rocks to the shops in your town or even your country (9.25)...*

*... It's about the environment, what's happening, it's about different people. To help us learn what's going on in the world, you've got to know what's happening about places (9.40)...*

*... We look at landscape to see whether the ground would be appropriate for the building of a school. In other subjects we don't really take notice of the outside. Geography shows us that we need to be aware of our surrounding areas and that because if we don't were just going to ignore it. You learn about the surrounding areas, textures of the Earth and the industries all around and other countries...like the currencies, whether they have volcanoes and earthquakes and whether they have industry (9.41)...*

Comments relating to people-people relationships most frequently referred to how people live and current events. Except for specific references to geographical factors such as tourism, there are few differences in the categories in the three years:

*... How people live and where they live (7.23)...*

*... Geography is a study of places and population....how people live, the population, what religion they follow (7.39)...*

*... Geography is about things to do with our world, how it is run e.g. industry - how many people have been born or died (7.38)...*

*... Geography will tell me where places, countries are, what people have to go through in their working lives...it tells me about what goes on around the country and other countries around the world (8.19)...*

*... Its learning about all sorts of different countries and finding out all sorts like tourism and the things around the world and that. World geography we learn about tourism, relationships and how many people go where, why and what for and things like that (8.39)...*

*... About doing different places and that, about all the people around the world and how they suffer and everything...you learn about all the different countries and what's happening (8.42)...*

*... We have to learn about countries and their lifestyles. We learn about other countries because we can find out how they are living, like a Third World country people will live completely different say to people living in America (9.11)...*

*... You look at places and look at what their about and what activities are their... countries and cities, also the population...we've got to where places are and what they are like (9.28)...*

*... It is important to know about other places, other countries to know about the traditions and cultures (9.76)...*

The least mentioned relationship was that between what is traditionally known as the land-land relationship. Most of these statements related to the structure and processes involved in the formation of the land:

*... The shape of the land, what it is made of and its surroundings (7.13)...*

*... How the land is shaped and what it is made of, it is interesting and important to know (7.23)...*

*... Landscaping...finding out how you can stop natural things happening to the world and what is actually under our feet. Looking at maps, seeing how the earth works...what's going on in the world like volcanoes and stuff like that (8.34)...*

*... Rocks and minerals, about the landscape, the lay of the land, how it is formed (8.37)...*

*... Land, maps and rocks, places, countries...most things on the surface of the earth. About how the world's formed and how the rocks, land and soil have been put there, how different countries are formed (8.51)...*

*... Also it will help us understand how rivers, land and other features are formed. It is interesting to learn how things are formed and so it is important. (9.18)...*

A limited number of comments actually summarised the whole sub-conception involving all three relationships and as such are somewhat more substantial:

*... Geography is about matters concerning the world i.e. environment, homes and transport. It has a lot to do with places around the world too. Geography is partly about the environment, its got to have something to do with our world and conditions we live in. The other parts are climate, population, earthforms and physical features (8.11)...*

*... Its about things going on in the world, the sort of earth types and how we can overcome disasters. It's about land and landscapes also about what sort of cultures live where. Also maps because you need the maps to find where places are, its fine talking about Kenya but if you don't know where it is, what's the point? The first time we did leisure I thought what's that got to do with geography...learning about the erosion of other cultures...but now I know (8.43)...*

*... Its looking at different aspects of countries...it's the physical side of the country, what the place is like, the people and things like that, things that are relevant to us. You look at different parts of it and things you don't look at in anything else like the physical side (9.83)...*

## **2. Conception B: the applied concept of geography**

### **2a. Sub-conception 1: a systematic approach to the study of geographical issues**

This sub-conception is typified by a specific approach to geography. Geographical issues are paramount and these are studied through a systematic approach either scientific or following a 'route for enquiry'.

The scientific approach is rather basic with comments explicitly stating that geography is like science and suggesting that finding out and researching are important. Both of these came from Year 8, areas of study are large scale and issues based:

*... Geography is like science, a science of the earth, sea, climates and people. Geography is about finding out, researching about something (8.4)...*

*... Finding about rocks, about the Earth and the world and how we are changing it, the scientific side, also the buildings and how we're changing them. It's a bit*

*of everything...geography tells you the basics of what science has done to the landscape...we've done rocks in science. We also did the water cycle in science some of it overlaps but it isn't the same it kind of spreads out differently, geography starts saying where the water goes...science doesn't go into as much depth (8.53)...*

The next set of categories relate the study of issues via the 'route for enquiry' although this is rarely fully stated comments do indicate a developing understanding of a way of studying geography. In year 7 this often related to knowing, the 'what' and 'how' questions of inquiry:

*... Knowing different places and helping you where you are and telling you all about what these places are actually like. The shape of the land, what it is made of and its surroundings...what impact humans have had on the land (7.13)...*

*... It tells you about places and where they are. You can find information out about them. It is about the world, countries...about where we live. We learn about where places are (7.16)...*

*... Geography is about things to do with our world, how it is run e.g. industry. What man has done to the world - how many people have been born or died (7.38)...*

In year 8 the comments become a little fuller and more explicit regarding the issue base of the subject:

*... The important parts of geography are things like country problems, habitat, culture...every day things we deal with. The most important were the types of problem i.e. tropical rainforest because it is important to know about things that are around in our time (8.11)...*

*... Geography is about where we live and what is happening around us. The most important things are learning about today and things which are happening*



*around us...the reason why it is important is like when we watch the news like giving Hong Kong back to China and the farmers chucking out food (8.22)...*

*... The first time we did leisure I thought what's that got to do with geography... learning about the erosion of other cultures...but now I know (8.43)...*

*... I don't know how to describe it, just loads of issues and problems of different places...but it's still about what the land type is, where the sort of land type can be found and what its good and bad points are (8.54)...*

The year 9 comments highlighted enquiry questions more specifically in relation to issues however these were still only partially covered:

*... So you can learn more about the planet you live on. Because of geography I know how rivers are formed, how floods are started and how dams on the Colorado work (9.5)...*

*... Geography teaches you about the world, the environment and much more. It gives you an in-depth look into things that happen and why they happen e.g. earthquakes (9.21)...*

*... It's just to understand the world really and learn sort of rock types, to explain really...what the world's like and what's happening in it (9.34)...*

*... You learn about the world itself and how it's all formed and the rocks and if you need to know anything about certain countries, like culture. Knowing about different countries and all the places. Not just the facts...you need to know about the parts to build up more information...just like the places and the culture, if you know about them you can adapt and help you as well (9.35)...*

*... We look at landscape to see whether the ground would be appropriate for the building of a school. In other subjects we don't really take notice of the outside. Geography shows us that we need to be aware of our surrounding areas and that because if we don't were just going to ignore it. You learn about the*

*surrounding areas, textures of the Earth and the industries all around and other countries (9.41)...*

## **2b. Sub-conception 2: geography as a personal approach**

This sub conception did not appear at all in year 7 and year 8, however in year 9 a number of students indicated that geography would be of specific personal use to them.

One comment alluded to the use in terms of achieving success in future examinations:

*... It will help me if I want to know where a place is or if I want to know how high a mountain is...I might get these sort of questions in an exam paper (9.4)...*

However the most popular personal use was relating geography to finding places, often directly associated with map reading. Also knowing about places so as to prove beneficial if visiting for a holiday. Within some of the statements there is also reference to cultural awareness and being able to adapt to others through having the knowledge and understanding that geography provides:

*... Geography we will need to know most about because have to know about the world we live in and if we went on holiday you need to know whereabouts you go (9.8)...*

*... We can learn a lot about our lives according to others... Giving us knowledge about different rock and land types so we know what use we can put them to...it helps us how to use maps, how to dress in other cultures (9.14)...*

*... I know more about the world, the state it is in and where places are in the world. It is important to know about the world so you can see what it is like and decide whether you want to go there on holiday (9.15)...*

*... To learn about places in the world, learn how to read maps and the structure of the rocks...just like the places and the culture, if you know about them you can adapt and help you as well (9.35)...*

*... You need it everyday to find places (9.59)...*

As one pupil puts it, geography has a whole range of personal uses and ponders where we might be if it didn't exist:

*... Geography comes into mostly everything and you need it to get from A to B...it comes into the average everyday life...without it we would be a bit stuck. We wouldn't know how to get to places and find out answers to important things...we wouldn't know about the weather or different layers of the Earth. Geography is mostly everything and life wouldn't be life without it (9.7)...*

### **3. Conception C: the idealistic view of geography**

The final conception discovered from the data did not appear until year 9 and is concerned with the macro questions geography asks particularly about the environment. The three pupils in this category had developed a personal view as to how we should treat the environment suggesting a sustainable approach with a responsibility to future generations. One individual referred to the developing respect for other cultures:

*... So you can learn more about the planet you live on. It's important to learn about the Earth so we can look after it better because we will have to live on it and consider what it will be like for future generations (9.5)...*

*... We need to find out about what the Earth is like, we have to learn about countries and their lifestyles. We learn about other countries because we can find out how they are living, like a Third World country people will live completely different say to people living in America. We find out about the world so we know what damage humans are doing to it and we can prevent things getting any worse (9.11)...*

*... Knowing about the environment and like the things around you...just to learn about it and that, the environment so we know how to treat it (9.57)...*

*... You learn about the environment, places and cultures...if you go there on holiday you can respect their way of life (9.80)...*

### **Some quantitative results**

Figure 16 indicates the type and number of conceptions held by the students during the three years of the study. As the same pupil may express different conceptions in the same interview or diary a simple rule was applied. Each time a single individual expressed a conception this was recorded. Hence by the time the pupils reached year 9, they were used to the style of questioning and had acquired three years geography experience, thus the numbers are higher than for the two preceding years.

The table (Figure 16) and graph (Figure 17) indicate the outcome space for the conceptions. By the end of the Key Stage there are three ways of seeing geography. The graph visually reveals the changing pattern of pupils holding these conceptions. It suggests that although the traditional conception is dominant throughout the three years, it declines steadily. In contrast, the applied conception steadily increases during the three years whilst the idealistic conception does not appear until the final year.

A hierarchical approach to recording the pupils' expressions could have been used. However, this assumes that there is an existing hierarchy in terms of conceptions of geography. However this study began with an assumption that this was not the case and aimed to discover all the differing conceptions of geography held by the cohort.

A discussion of the findings follows in Chapter 9.

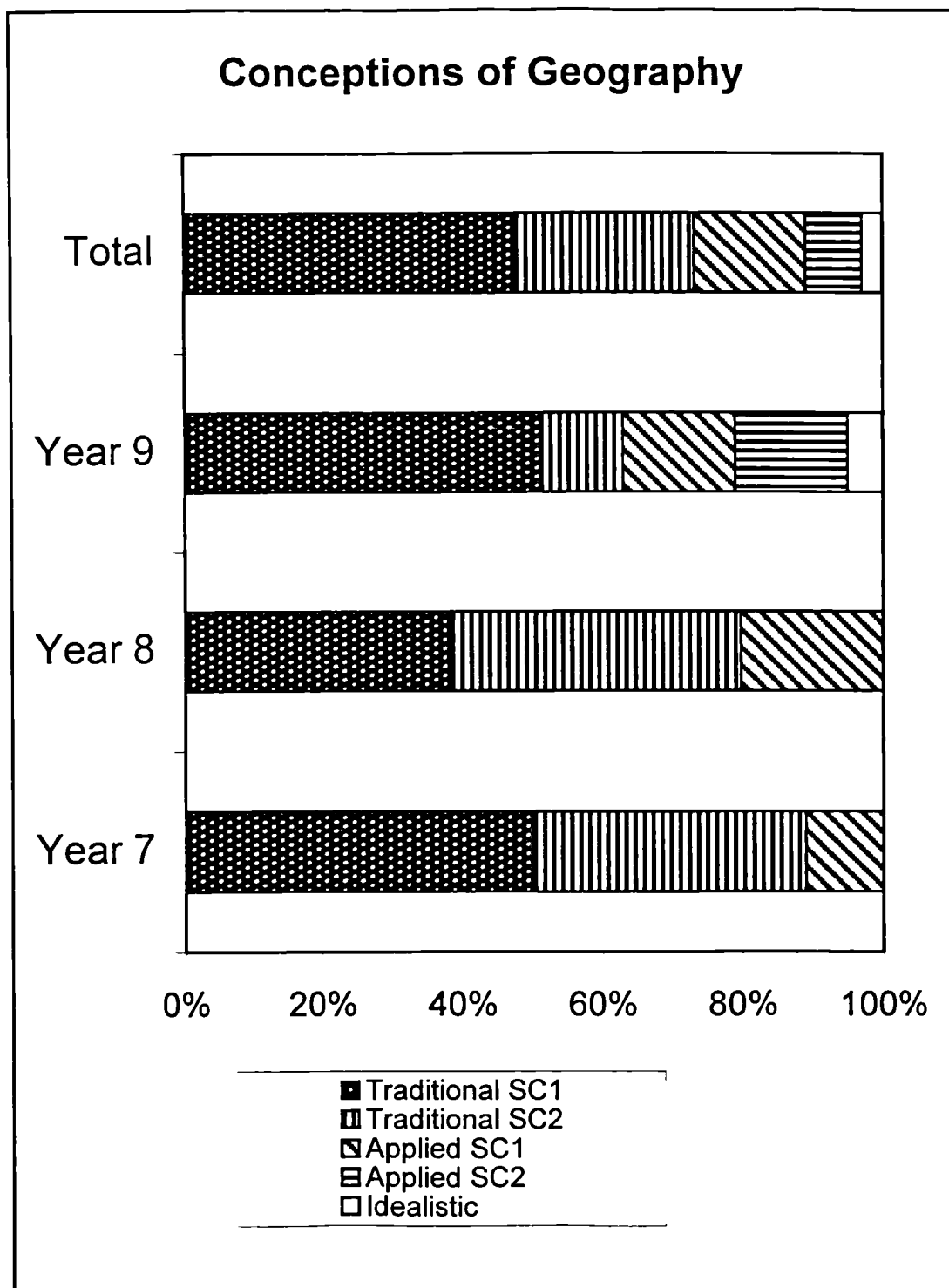
Figure 16: Conceptions of Geography<sup>10</sup>

Conception	Traditional conception	Traditional conception	Applied conception	Applied conception	Idealistic conception	Total
Year	Sub- conception 1	Sub- conception 2	Sub- conception 1	Sub- conception 2		
Year 7	18(50%)	14(39%)	4(11%)	0	0	36(100%)
Year 8	15(38%)	16(41%)	8(20%)	0	0	39(100%)
Year 9	39(51%)	9(12%)	12(16%)	12(16%)	4(5%)	76(100%)
Total	72(48%)	39(26%)	24(16%)	12(8%)	4(3%)	151(100%)

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<sup>10</sup> In Figure 16 not all % total 100 due to rounding up

Figure 17: Graphical representation of conceptions of geography



## **CHAPTER EIGHT**

### **RESEARCH FINDINGS 2**

#### **Conceptions of learning geography**

This chapter will follow a similar format to Chapter 7. Here, I analyse, through description, the conceptions of learning geography as identified through the phenomenographic approach. As in the last chapter, the conceptions will be considered for each of the three years of the data collection in an attempt to identify both qualitative and quantitative changes and to produce an outcome space.

Analysis of the students' transcripts identified five conceptions of learning geography (Saljo, 1979; Giorgi, 1986; Marton *et al*, 1993). In this chapter both the conceptions and categories of description relating to them will be described. In summary, the five concepts are:

#### **Conception A**

Learning was seen as

- Increasing one's geographical knowledge

The emphasis is on learning factual information that was not known before.

### **Conception B**

Learning was seen as

- Remembering/ memorizing

The emphasis being on learning factual information for recall in specific situations particularly tests and examinations.

### **Conception C**

Learning was seen as

- Applying knowledge/ procedures

The emphasis being on using what has been learnt in the present or differing situations.

### **Conception D**

Learning was seen as

- Understanding

Emphasis in this conception is placed on new ideas and seeing something in a different way as compared to before.



## Conception E

Learning was seen as

- A need for change

Emphasis is placed on a future perspective in which change should take place. It also suggests that change in the individual is required.

The essential distinction between the conceptions is in the purpose and process of learning.

The conceptions are now described in terms of the outcome of learning (the 'what' of learning) and the process of learning (the 'how' of learning) and the referential and structural aspects of each of these elements.

### Categories of description

#### 1. Conception A: learning as increasing one's geographical knowledge

One of the main features of this conception is the vagueness and taken for granted nature of the learning process. Learning is something that happens to the individual with no element of control over the process being evident:

*... You are always learning new things...about where you are and things (7.48)...*

*... I preferred the work this year, I've learnt more from it (8.35)...*

*... It's not harder, we've learnt more as we have gone along (8.50)...*

*... There are things you don't know, so you learn them all the time (9.64)...*

Frequently, the word learning is used in the response, which is not surprising as it formed part of the original question asked. However, the other key feature, what is learnt or 'knowledge' is not really explored:

*... Learning about the world and the things on it (7.21)...*

*... I now understand things better like the words and more about geography in general (8.14)...*

*... Geography teaches you about the world, the environment and much more (9.21)...*

*... I learn facts...basically about the country (9.32)...*

*... It gives you a basic knowledge of different places and about your own country and natural features, you get to know a lot more about them (9.33)...*

*... To give you knowledge of other countries and like the world in general (9.37)...*

*... Well, you learn about things around the world (9.62)...*

*... A lot of knowledge about places and things like that (9.84)...*

The outcome of learning in this conception is an increase in an individual's geographical knowledge (the referential aspect of the 'what' of learning). Thus, a number of comments had a quantitative flavour to them hinting at the increase in the knowledge acquired:

*... I have learnt more about maps and I know more technical names now (7.10)...*

*... I have learnt more about countries and the towns they live in (8.9)...*

*... So you can learn more about the planet you live on. Because of geography I know how rivers are formed, how floods are started and how the dams on the Colorado work (9.4)...*

*... Learn about places in the world, map reading, the structure of the rocks and if you need to know anything about certain countries , like culture...it helps if you know more, lots about a place (9.35)...*

*... It just sort of expands your knowledge of the world (9.37)...*

*... People want to know as much as they can (9.60)...*

As learning is considered to be gaining more knowledge, the way in which the individuals view this knowledge is an important indicator of this conception. A major feature of knowledge is its factual nature. In year 7 this was indicated at rather a simplistic level:

*... Learn about rocks and places in England and Europe (7.1)...*

*... I am learning about places and things like population (7.5)...*

*... I learnt where the South East is in relation to Europe, about the rocks in the South East (7.13)...*

*... I have learned a lot especially about Sao Paulo and London (7.23)...*

*... Its about where cities are, where people live...London and Sao Paulo (7.28)...*

*... I have learnt about relief and different rocks (7.36)...*

*... Channel Tunnel and South East work was hard, looking to find the facts (7.43)...*

Similar simplistic comments relating to specific topics studied continued into year 8:

*... I've learnt about the rainforest, Prairies and Rotterdam (8.6)...*

A few comments continued with a little more detail in terms of scale and other elements as well as places:

*... It tells me where places, countries are, what people have to go through in their working lives... It tells me about what goes on around the country and other countries around the world. What the weather is around the world (8.19)...*

*... places, knowing the world, knowing where places are, map reading and stuff because you don't get these skills in any other subject...doing coordinates and things, learning how to do them, knowing the capitals about the world (8.35)...*

Year 9 was similar to year 8 in having comments varying in length, depth and focus:

*... We learn about rocks, the world, climate etc (9.16)...*

*... It tells you about volcanoes, things to do with the Earth (9.29)...*

*... what places are like and what the climate is and if they have deserts and things...learn what they are and where they are (9.36)...*

*... It will help your knowledge, just knowing like different rock types. You've got to know about places and you could not be just left at all knowing anything about where places are or what sort of rocks or temperatures are, you need to know something (9.81)...*

*... I learnt about the relief, climate, statistics, population figures, these are all the facts because that's a question you can actually get an answer from, it is either right or wrong, it isn't opinion, if it was opinion you don't have to learn it, you already know it (9.82)...*

A second feature of the role of knowledge in this conception and evident in some of the examples already presented is its discrete nature. This is exemplified through the descriptions often in the form of a list of what has been learnt. This takes two forms, at the simpler level it is a list of separate topics studied:

*... It was interesting to learn about the different types of energy... I have learnt about water, electricity and pollution (8.25)...*

*... To learn about our country, we learn about the land, landscape, earthquakes and volcanoes, even about the weather and transport (9.38)...*

*... You learn all the kinds of rocks, fossils, land and places. The world, it develops and what it does (9.46)...*

*... It's about learning different countries of the world and learning to draw maps and map reading, where they all are and where to find them (9.48)...*

*... You learn about all the figures, population and things like that (9.65)...*

*... Learning about the world, the community, food, economical things, agriculture, type of people (9.76)...*

At the more complex level it is based around a series of questions:

*... Learning about places and countries, their background, what sort of places they are, also whereabouts they are (7.32)*

*... In geography we found out how you can tell which way a river flows, how to describe it and the way it flows underground (8.54)...*

*... To learn about the world, where countries are and everything, how big they are and how many people live their (9.39)...*

A year 8 pupil gave a typical comment summarising this view on the discrete and factual nature of the conception:

*... It gives us a good mixture like the tourism and the Hylands House and also independent work like the Alaska newsprint, I like the factual things like when we did the writing about the land and also map reading. Energy was enjoyable and we have to know about these sort of things, where oil and coal are found underground. So we know places, like I didn't know where Phoenix was, I knew it was in America, but I didn't know whereabouts it was (8.51)...*

The above focuses on the question of what the meaning of learning is for this conception. The main indicator is that of the acquisition of pre-existing knowledge of a discrete and factual nature. The 'how' aspect of this conception refers to the process involved in this acquisition. This element of the conception is not fully described in year 7 or 8 but appears in greater detail in year 9.

Once again the taken for granted almost haphazard nature of the process is evident. Much of year 7 and 8 descriptions were focused on 'getting into' the work without actually explaining what this meant, there is no discussion as to how the knowledge is acquired, it is just handled or coped with:

*... Most mapwork I have coped with (7.32)...*

*... I have learnt more about countries and towns they live in, I like looking at the way people live and work (8.9)...*

*... I like looking at maps because you get to know many places and you will know better where you are (8.24)...*

*... You can handle it, you can cope with it, if you know it, it is an easy thing to learn, the hypermarket was easy (8.37)...*

*... I understand it when I can just get on with it (8.38)...*

*... Basically you just give us a sheet which you've written and an atlas and just let us get on and sort it out itself...and then talk about it afterwards (8.51)...*

*... When its hard work I do better because my brain gets engaged and I get into the work (8.52)...*

*... Working on your own you learn most because you get all the ideas yourself (8.60)...*

In year 9 the process became much more explicit and is typified by the 'consumption' metaphor (Marton *et al*, 1993). Phrases such as 'take in', 'pick up' and 'flying in' are common. The acquisition of the knowledge occurs indiscriminately without the conscious selection or filtering of what is useful. It becomes a process of 'filling the head'. The activity involved does not appear to be significant, although some pupils recognise the need to engage in a certain amount of effort, as the process is achieved through reading, note taking and interaction with the teacher. A few pupils, however, mention that the level of interest in a topic has a positive effect on the process:

*... I have never really thought about learning, I look back through my work but generally as long as I understand it I'm alright, if something is interesting it stands more of a chance of going into my brain (9.21)...*

*... When I understand a question the answers immediately come flying in, that's how I know I understand something, it suddenly hits me like a brainwave (9.26)...*

*... reading, I take it in through reading, if its interesting it sticks in my mind (9.33)...*

*... look it up I guess, I don't really know you sort of get down to it, I just don't think about it, I just work (9.34)...*

*... You learn more working on your own because you can pick up your own info (9.35)...*

*... By reading it really, you read it and it just get stuck up in your brain, you just know it (9.48)...*

*... You build up your knowledge of the subject which means you know more (9.49)...*

*... When the teacher explains something you take it in more (9.69)...*

*... Like the French work you've got to write about it and as your writing it your reading it and it all goes into your head (9.71)...*

*... I usually read through my work and if there's important notes, I usually jot them down, the more I'm interested the quicker it sinks in. The more keener to learn you concentrate more on reading it, so it goes straight in, I think I'd learn the facts (9.76)...*

*... facts, because these are things I can just pick up, I mean it is in my head...for example, I know the Alps are mountains (9.82)...*



Two pupils in year 9 allude to the notion that the brain expands so as to cope with the fresh information and this is a natural process as one gets older. This assumes that the minds are empty to begin with and require filling with knowledge. It perhaps implies the idea of a finite capacity, some people have larger brains than others, but the quotes also suggest that there is no end to this process:

*... Its got harder but you don't always notice because the older you get your brain expands and you pick up more information (9.35)...*

*... If you get what their talking about, your learning something knew and it makes it more interesting, it expands and makes it bigger (9.55)...*

In summary this conception is characterised by the acquisition of factual discrete pieces of knowledge (the referential aspect of the 'what' of learning), it has a quantitative element in that there is an increase in the amount known. The amount of knowledge is fixed in time (an individual has a certain amount of knowledge at a certain time) but this increases over time, (the structural aspect of the 'what' of learning). The process of acquiring this knowledge is best exemplified by the consumption metaphor - taking in (the referential aspect of the how of learning) and is achieved through a process that involves the learner, an act of learning (picking up) and the object of learning (pieces of knowledge). There is no reference in this conception as to the use that could be made of this knowledge, the main point is to learn the information for learning's sake.

## **2. Conception B: learning as memorizing**

The distinguishing features of this conception are the elements of acquisition and application (Marton *et al*, 1993).

In this conception, the meaning (referential aspect) of the learning process is to remember and reproduce the information. This reproduction is focused at a specific element usually tests or examinations (the structural aspect).

In year 7, few statements related to this conception and they were fragments of the referential aspect relating to the importance of remembering:

*... We learnt about the South East, rocks, physical geography, about my home region. I learnt about settlement, town functions...I think I can remember it all (7.4)...*

*... The more I do on maps, the more I remember (7.36)...*

*... Its about how much you know, how much you remember (7.48)...*

In year 8 the first hint at the purpose of memory for reproduction is stated.

*... When you are thinking you will not forget it (8.47)...*

*... Things can just slip out of your memory on the longer projects. To find your level, like you've been taught stuff and to get a good mark you've got to remember it but a lot of people haven't got a good memory, they can't remember all the way back (8.50)...*

However, by year 9 the role of memory has become much more explicit and is seen as part of the learning process. Some responses also suggest a purpose for the memorising of the work:

*... If we don't know something we found out about it and that's part of learning...you try and memorise it (9.8)...*

*... I look at the info that was most important from the unit and try to remember it (9.15)...*

*... Most of the work I tend to remember but it depends on the work. If it is a word they don't always stick, but in full discussion work, groupwork or issues I tend to remember. For example I still remember a load of work about Sao Paulo in Brazil (9.21)...*

*... Most people should know Paris is the capital of France you learn just to keep it in your head (9.27)...*

*... Remember, you just remember what it says, if you know what it says then you can remember it. I'd write it down so I can remember it (9.36)...*

*... how the crust pulls apart, the molten lava, I've just remembered it from my book (9.47)...*

*... Remembering is a big part of learning...I remember things that interest me... Often I remember facts but also how I feel about issues like Sao Paulo (9.65)...*

*... remembering, I just remember. Your not learning all your life so you've got to learn something, once you leave school you've got to remember it for the rest of your life. I think you learn all these things then every so often like the San Francisco earthquake you can look at that and think sub-consciously how earthquakes happen and like when your talking about the epicentre and you remember such and such (9.79)...*

*... A lot of its remembering I suppose, you do have to learn it to remember it don't you? (9.84)...*

The structural element of the 'what' aspect of this conception relates to the purpose of this type of learning. In this case the focus is confined to specific occasions particularly the reproduction of the material for a test or examination. Although responses in year 7 suggested the structural element of the learning, by year 8 comments referring to the structural element were formed:

*... Not many people like tests but I think it will help us know what we know and what we don't. I don't know if I will be able to remember it all (8.4)...*

*... You might just learn the work for the tests then forget it (8.43)...*

*... For some of the tests you have to remember things which are quite a while back. If they want to know how much you can remember you can use a test (8.55)...*

A limited number of statements from year 9 also stressed the importance of remembering for a test but also alluded to longer-term reproduction of the information:

*... There's no point in teaching us if it goes in one ear and out of the other...it like refreshes our memory of what's going on so if we do a test we don't have to think, that way it is printed in our memory and you remember it (9.29)...*

*... not learning it for good or just remembering it for a few weeks for a test, you forget it afterwards because your not bothered. When you go back you sort of jog your memory, and you look at it and you say I know that, it is in your brain (9.37)...*

*... If you memorized it, it quite often goes after a while so you read it once and learn it properly off by heart, so you know it for as long as you need it, longer than if you just memorize it for a test (9.76)...*

The process of learning identified in this conception involves, in the first instance, similar methods to the increasing knowledge conception, that is the consumption metaphor. Students take in and pick up the work so that they can remember it. This view of acquiring knowledge to remember was only present in year 9. The developing importance of acquiring knowledge to remember could be, in part, due to the transition from primary to secondary school. In the

secondary school, the fact that important examinations are clearly in the pupils' minds by year 9 suggests that this assumption of learning comes to the fore:

*... I'd go through my book, what we've done, read it out to myself, so I'd get it in there, you need to remember it, I'll do this for a couple of days (9.21)...*

*... There are different ways of learning, reading it over and over again...if I'm asked a question I think of it and then give the answer and try to get it right. I read it through a couple of times, then it depends on what it was I might read it through and tape it and listen to it, so its like someone else reading it to me (9.31)...*

*... I sit down at home and go through the work that we've been doing and try to take in the important parts about it...I make notes on the bits I think are important and learn them, read them through and think about them, I'll look it up and take it in as much as I can and remember it (9.35)...*

*... read it through three or four times, so you keep it in your head, so you remember it. If its important I write it out, when you write it out you think about it and it stays in your head (9.39)...*

*... look back in your book, read it through and try to remember it...after you've read through it by the end you've got the basic stuff (9.68)...*

*... Like with the French work you've got to write about it and as your writing you read it and it all goes into your head and you memorize it (9.71)...*

Other comments suggested that the way to memorise was through breaking the information down into more manageable and hence learnable amounts:

*... give them a big question, like a 3 part question on describing how water is polluted, how to prevent it and things like that, it makes them remember (8.57)...*

*... Learning is remembering it but you've got to sort of like know it. Some bits you can break down into little bits so you can remember it better...I learn best this way (9.41)...*

However, for other pupils it was the practice, particularly of skills, that help the memorising of information:

*... What makes me learn more is drawing all the graphs because I can describe them which makes me remember things, like I know the south of France is the hottest. If you remember it you've learnt it, if you look at it and forget it then that's not learning...I can't remember half the graphs I've drawn but you've got to learn how to draw graphs but you don't remember the figures. The graphs are a set rule, remembering things is different for every country (9.64)...*

*... your writing it and then you've got to read through it and then you tend to remember it. If you draw a map of India you tend to remember where all the places are, if you did it once you'd take it in...like before I did France, I didn't know the exact shape but I could draw it without an atlas...that comes to my memory. Learning the facts then you can develop the more complicated stuff from it, you just remember the basics (9.67)...*

*... Just read through it and all the bits I know I skip and read the bits I don't know...if it comes to maps and graphs I'd try drawing them so I can get them right (9.71)...*

Another 'process' of learning as memorisation is one that helps identify memorising as a separate conception, the use of repetition. Many of the above statements allude to this particularly through the idea of practice. At its simplest level this was identified in year 7 and can be achieved in different ways:

*... I have this book at home and I read it through, then I close it and write it in my own words (7.7)...*

*... keep looking back through my geography book at the work we did before (7.13)...*

*... I learn when you over it 3 or 4 times (7.26)...*

In year 8 the notion of revision and being tested to help in the remembering process appeared as a common thread:

*... I looked through my book a couple of times (8.9)...*

*... to revise for 1½ hours every night, you keep going over and over it till you remember it (8.34)...*

*... I look in the book, normally I get someone to test me, if I don't get them right I come back and do them again (8.47)...*

*... I just looked through my book for 5 minutes, that's all, most of the stuffs in my head (8.48)...*

*... you have to revise, so like when you bring it all back, if you just like go through it you might just forget it (8.56)..*

By year 9 the comments as to this way of learning are commonplace. In the main the process involves a reading and re-reading of the work in question and, frequently, the taking of notes. Pupils identify work they are unsure of on which to focus and attempt to concentrate on what they perceive are the important elements. They will ask themselves questions or get others to test them to see if they have successfully remembered the information. Sometimes the number of repetitions required to memorise the work is mentioned although this appears to be an estimate rather than hard evidence of success. Repetitions vary between a couple to ten times and there does not appear to be any discrimination between what is learnt and the amount of learning needed. Very few statements

identify what is actually to be memorised. More frequently a blanket approach is taken typified by the 'going through my books':

*... The things I choose to learn I do by reading through the writing and writing down words and sentences that have things in them that explain something...or shorten the paragraph to simplify it...I learn the notes by reading them (9.17)...*

*... Normally I'll just read my books...I'll read a little like the minor things then I'll get into it more then I'll get someone to ask me questions (9.29)...*

*... You just go through the book and make notes of the most important things you need to know and you just keep looking at the notes, 10-15 minutes a day and just try to remember it (9.34)...*

*... I look through it and make sure I know all about it, look through the work I'd done and then I'd try and remember most of it, read and read it until I understand it. I'd write some notes on it, so I could learn the notes as well (9.36)...*

*... I just look through my book a few times, flick through it and read the things that I think are important. Sometimes I look through my book and write it down afterwards to see what I remembered. If I leave it for half an hour and then try to write it down. Then I'd write it down the next day just to check I've not forgotten it (9.37)...*

*... look it over, write things out...I try and pick out what's important, read it over and write it out into notes...usually a couple, three times (9.40)...*

*... You read it and think what you do in that lesson...I look through it quickly and then I go through it again in more detail...I'd spend more time on things I don't know but I'd pay attention to those I do know because I may have forgotten it (9.55)...*



*... I've still got the old books, I'd go over these and memorize it, you look at them and remember what you were doing, think back to what you were taught and remember...I just shut the book and say like what the rocks are for example (9.66)...*

*... reading it, thinking about it, asking yourself questions about the work (9.75)...*

*... Look through my book and read it, as many times as makes me understand it. When you can remember it without looking in your book (9.77)...*

*... I read through it and make notes about any key points, look what's the main thing about it...a couple of times and then you can test yourself (9.78)...*

*... Look at the most important bits such as figures, at certain places, facts that are well known and try to make sure I know them as well as I can. I read through them, make notes and every so often check through as many times as I feel confident...it could be 3 or 4 times (9.79)...*

*... My way is working through the exercise books picking out the important facts, judging the amounts, writing them down on paper and going over and over them. It is not how many terms it is how long you spend on it which is different for each unit (9.82)...*

### **3. Conception C: learning as application**

This conception of learning is distinguishable from the latter in that although application is the key indicator, what is being applied does not have to be an exact reproduction of what was learnt.

In this conception two forms of application could be identified: application of knowledge and application of procedures.

In Year 7 there were only six responses that identified this conception. These were examples of the 'what' aspect of the conception, that is the application of the knowledge and/ or procedure (referential aspect) and the situation in which this occurs (structural aspect):

*... I learnt many things from the landscape. I learnt more than I thought the Europe mapwork helped me with my French. I also learnt how to compare notes and how to work on subjects (7.2)...*

*... It was a good idea to get us to do a little project on our own ready to be able to do our Channel Tunnel by ourselves (7.6)...*

*... learnt how to follow maps properly (7.11)...*

*... towns, cities and maps - it is important because I might want to go their (7.25)...*

*... I think I did well but I got a C, I learnt from it by what things I should do next time, I could write a lot more and do more drawings (7.38)...*

*... I learnt how to do stream measurement (7.39)...*

In Year 8 the comments were similar however there was a much stronger reference to procedural application:

*... When we work under general headings it is more interesting and I can write a detailed answer. My work is better because I am used to the type of work now. I prefer project work which we have aspects to cover like climate, vegetation and land use (8.8)...*

*... I am settling down to work knowing what to do (8.15)...*

*... This year is a bit easier because we know a bit more about geography like reading maps and stuff like that, I'd be sitting there last year not knowing what to do (8.34)...*

*... If I get a bad mark I try to look back and see where I've gone wrong like I may not have explained things much...then for future reference I can go back and see how much I explained and what I got for it (8.43)...*

*... I've learnt to write more, getting more detail into my work (8.52)...*

*... If I work in pairs I can get a different view of what I'm doing which would probably provoke more work and different ways of putting it and setting it out (8.57)...*

One response referred to applying knowledge, rather than procedure:

*... The water work was hard, we had to work to the description and we had to work out which was which...I had a geography dictionary but it had completely different descriptions on the sheet - a lot more complicated, they had about two paragraphs for each entry so I had to put it into short form and compare it with the statements on the sheet (8.57)...*

Three comments related to the outcome or 'what' element of the conception, noting its structural aspect and suggesting situations in which the learnt material could be applied:

*... we do get a general type of question but I always thought of it as useful... when writing essays you can use these questions (8.18)...*

*...The most important things are learning about today and things what are happening around us... The reason why it is important is when we watch the news like giving Hong Kong back to China and the farmers chucking out food (8.22)...*

*... tourism, you learn about how much tourism there is in different places and you could use that for a holiday (8.39)...*

One response noted the future use of the knowledge gained, but also the difficulty inherent with this conception, that is:

*... If you go into the shipping business your going to need to know what's where, you might think China is where Japan is...it could be generally useful like if your going places or you want to visit somewhere. There was the River Towy because it didn't have all the direct things to do I found it hard to like think what can I do with it you got stuff from the maps but there's a lot of things you had to think of, what you might need...you needed to put your own work in (8.54)...*

Year 9 had by far the most comments relating to this conception. Those incorporating procedures tended to refer to the way of working as well as mapwork:

*... The France work I liked; it gives us the chance to plan our own work including homework. It is a good idea to plan our work because we normally have everything planned for us, but its not easy (9.22)...*

*... Learning is not just remembering it is learning to cooperate with other people and learning how to do it (9.38)...*

*... I do a lot of mapwork, this is learning how to do it, its harder because most of these things you have to practice to do, I like learning how because that involves practical work. This year you've been giving us topics to do on our own, to find things out for ourselves (9.66)...*

*... also using an atlas, I have learnt how to use an index. Also just to learn about places and learn how to use things like if when your older your drawings, you've got to use a map and geography shows you what to do (9.71)...*

*... also learning how to do stuff, like map reading (9.72)...*

*... other things like going from London to Birmingham you'd have to work this out but I can't find a word for it (9.82)...*

*... putting things together and coming up with a piece of work which makes sense. Reading a map, using an atlas, reading, plotting a graph (9.83)...*

Quite often however the comments seem hopeful, full of good intentions suggesting something could be used in someway:

*... I expect I will be able to use what I know sometime, at the moment it is helping me with my other subjects like the Island project in English, also the atmosphere in science (9.6)...*

*... We will be able to use what we learn in other subjects (9.20)...*

Most of the comments appertaining to the structural element, or the situation and what is being applied, of the 'what' or outcome of the conception had a future oriented theme to them. Statements relating to the work situation were common:

*... I might become a surveyor and need to know all about rock types and land formations or I might be a bank manager in which case know countries and currencies would be handy (9.1)...*

*... I want to be an architect...to know what type of land is below the site for the building's foundations and structure (9.19)...*

*... If you wanted to be a travel agent it would help to know about different countries, where places are in the world (9.40)...*

There appeared to be a general trust in the 'worthwhileness' and applicability of learning geography:

*... geography would help you find out which areas would be best suited for certain buildings...it's just going to help you (9.41)...*

Perhaps, the most frequently cited 'useful' application of geography was for holidays or visiting different places. This was taken to be significant, and the most frequent indicator of the 'learning as application' conception:

*... If there is any need to travel, I suppose because you not only; use geography for maps and countries, places etc. but also to find out about tourist places and rivers (9.10)...*

*... it will help some people... When I'm going on holiday, visiting another country or even staying in England...I'm going to know when I'm visiting a place if it has a volcano or something (9.11)...*

*... I will know about the temperatures of a place when I go on holiday and I'll be able to read a map if I need it (9.13)...*

*... You can learn how to read maps and you can learn all sorts of things, you can use a compass. If I wanted to pick a holiday and I wanted to go somewhere that was hot, interesting, exotic, if I'd done geography I think I'd know a few places (9.33)...*

*... I've learnt about different countries so it would help if I wanted to go to different countries...with the weather, the landscape, the rich and the poor (9.38)...*

*... You learn about the environment, places and culture and if you go their on holiday you can respect their way of life (9.80)...*

*... So we can look at things like the whole country and if we ever go there we know what to expect and what peoples in certain countries think. We do drawing graphs in lots of subjects, mapwork we do some in maths, in English we are doing Tonbridge a fantasy one, but the work we did in geography made this easy (9.82)...*

A number of statements show the application of the subject was very general and occurred in a variety of contexts:

*... It will help me in the future if I want to know where a place is or if I want to know how high a mountain is...I might get these sort of questions asked in an exam paper. I also learnt how to work and cooperate in a group (9.4)...*

*... Because geography comes into nearly everything and you need it to get from A to B...it comes into the average everyday life, without it we would be a bit stuck. We wouldn't know how to get to places and find out answers to important things...we wouldn't know about the weather (9.7)...*

*... Giving us knowledge about different rocks and land types so we know what use we can put them to, helping us decide where to live, how to use maps, how to dress in other cultures...basically every job benefits from geographical knowledge (9.14)...*

Only one comment provided evidence of the 'how' aspect of this conception, that is, the retrieval of learnt material and its application:

*... It is interesting to find out about how things are formed and so it is important. If you visited somewhere with strange rock formations you would wonder how they got like that but if you had learnt about the land you would already know... You could pass on your information to other people (9.18)...*

Although one response alluded to the constructive nature of the process and as a result this provided the context in which material could be applied to the learning situation:

*... I suppose you learn as you get more used to the actual lesson and the process of learning then the years don't seem harder because of the build up of learning (9.66)...*

#### **4. Concept D: learning as understanding**

In this fourth conception of learning the focus changes from the actual knowledge itself and the purpose to which it can be put, to the meaning attached to the work. In this conception, learning is viewed as a way of seeing something and as such developing understanding rather than just 'taking it in'.

Often the comments involve a 'how' or 'why' reference to the work that in turn requires an explanation to facilitate the grasping of new ideas.

In Year 7 the few comments relating to this conception were not fully developed only partially hinting at the new ideas to be understood:

*... also about how town functions, how cities grow and change and how they got into their present state (7.34)...*

*... finding about why the tropical rainforest is being destroyed (7.41)...*

*... I learn from looking at a map and having to go through it...if you stare at it you don't learn (7.49)...*

Year 8 continued in similar vein with only reference to the 'what' aspect of the conception being present. The referential element (grasping new ideas) and



structural element (the learning situation in which this occurred) however were distinguishable in some of the responses. However the 'how' aspect of learning as understanding is not developed, although the final two comments begin to relate to a different way of viewing the work through interaction in a group situation:

*... The questions are all getting at the same thing e.g. why it happened, how it happened, the questions are getting us to explain the work (8.13)...*

*... I have to do much more thinking in geography, it is to do with thinking the answers through carefully and wondering if it is right (8.31)...*

*... I don't always look at my marks sometimes I wait till I get home...I read the comments to find out what I need to do to improve (8.36)...*

*... We only scratched the surface of geography last year, you actually sort it through and explore it in this class (8.37)...*

*... Its interesting to see what's happened like the Colorado...I never knew that and I thought it was quite important we looked at that and we realised we were destroying it from what nature put there (8.51)...*

*... working in pairs, if your stuck for ideas you can always ask another person... you can put your heads together, usually we ask each other to find out what our viewpoints are...in pairs, you may have missed something but the other person has got it (8.43)...*

*... When we did that news report on Alaska I find its better to find out what other peoples views are and then you can see what they feel about it. Your finding out what they found out and what you found out and it might be a little bit different (8.54)...*

In Year 9 reference was still being made to the explanatory stance required to gain understanding but also that it was a difficult process, much harder than the acquisition of factual material outlined in the first three conceptions:

*... We can learn a lot about our lives according to others (9.4)...*

*... to understand how other people live and the countries in which they live. Also it will help us understand how rivers, land and other things are formed (9.18)...*

*... We just talk...you don't exactly learn if you hear it...I think because learning's different isn't it...I can listen but it is in one ear and out the other, but I can sit down and think about what a person has said... It's the difference between listening and learning. When I write it down I talk to myself, I can't think while everyone's talking, I sometimes put my fingers in my ears and put my head down and try to think, if I don't understand something, I'll try and think about it and work it out (9.29)...*

*... Talk helps you learn because if somebody comes up with a good idea and it's helpful and it could explain well say a different meaning and it leads onto something else you can learn about it and it builds you up with all that knowledge and you go through a piece of work in full (9.35)...*

*... You might know a fact, like a mountain is 3000 feet, but it is much harder knowing how they were formed, there's a lot of things that make this up, not just facts (9.66)...*

The way in which understanding is developed was present in some of the statements. This involves the looking into the work and viewing it from a different angle so as to grasp the necessary meaning. The responses are, however, underdeveloped with only one statement providing any context as to how developing understanding occurs:

*... If I get a bad mark I'll look to see what I've done wrong and try to work out what the actual answer is (9.32)...*

*... Working in groups because someone might know something you don't and you can find out what they think (9.49)...*

*... If I got a C3 and I didn't know what to do, I'd come and ask you to explain it a bit more and then do it again (9.56)...*

*... the talks, like the earthquakes, I really enjoyed that because you get everyone else's opinion and you compare it to see if their ideas are better (9.75)...*

*... a variety so you can get different views, angles...more variety of learning (9.79)...*

## **5. Concept E: learning as change**

The final conception identified had only two statements allocated to it, both partial and underdeveloped. The conception 'learning as change' requires the individual to view the phenomena in the material differently and in doing this means that he/she would change as a person. The focus of the learning is the world around us and the meaning this has for the learner. This wider perspective, outside the usual learning situation suggests that the individual is part of what happens, rather than a passive bystander:

*... It is important to learn about the Earth so we can look after it better because we will have to live on it and consider what it will be like for future generations (9.5)...*

*... We find out about the world to know what damage humans are doing to it and how we can prevent things getting any worse (9.11)...*

## Some Quantitative Results

Figure 18 provides a classification of the percentage statements relating to each of the five conceptions throughout the three years. The percentage of responses for both the year and whole key stage are included. The same rule, of recording each comment relating to a conception, used in Chapter 7 was applied. Again the greater confidence and experience garnered by year 9 is the reason for the greater number of comments.

As noted at the beginning of this chapter five conceptions of learning geography were identified and these provide the outcome space of learning in geography. The graph (Figure 19) and table (Figure 18) indicate some interesting patterns of change in the conceptions. Learning as increasing knowledge steadily declines over the three year period, whilst learning as memorising increases particularly in year 9. Learning as application is resilient over the time period at around a quarter of the responses, whilst learning as understanding fluctuates, overall showing a decline. Learning as change only appears in year 9 and is of only limited importance when compared to the other conceptions.

A discussion of the findings follows in Chapter 9.

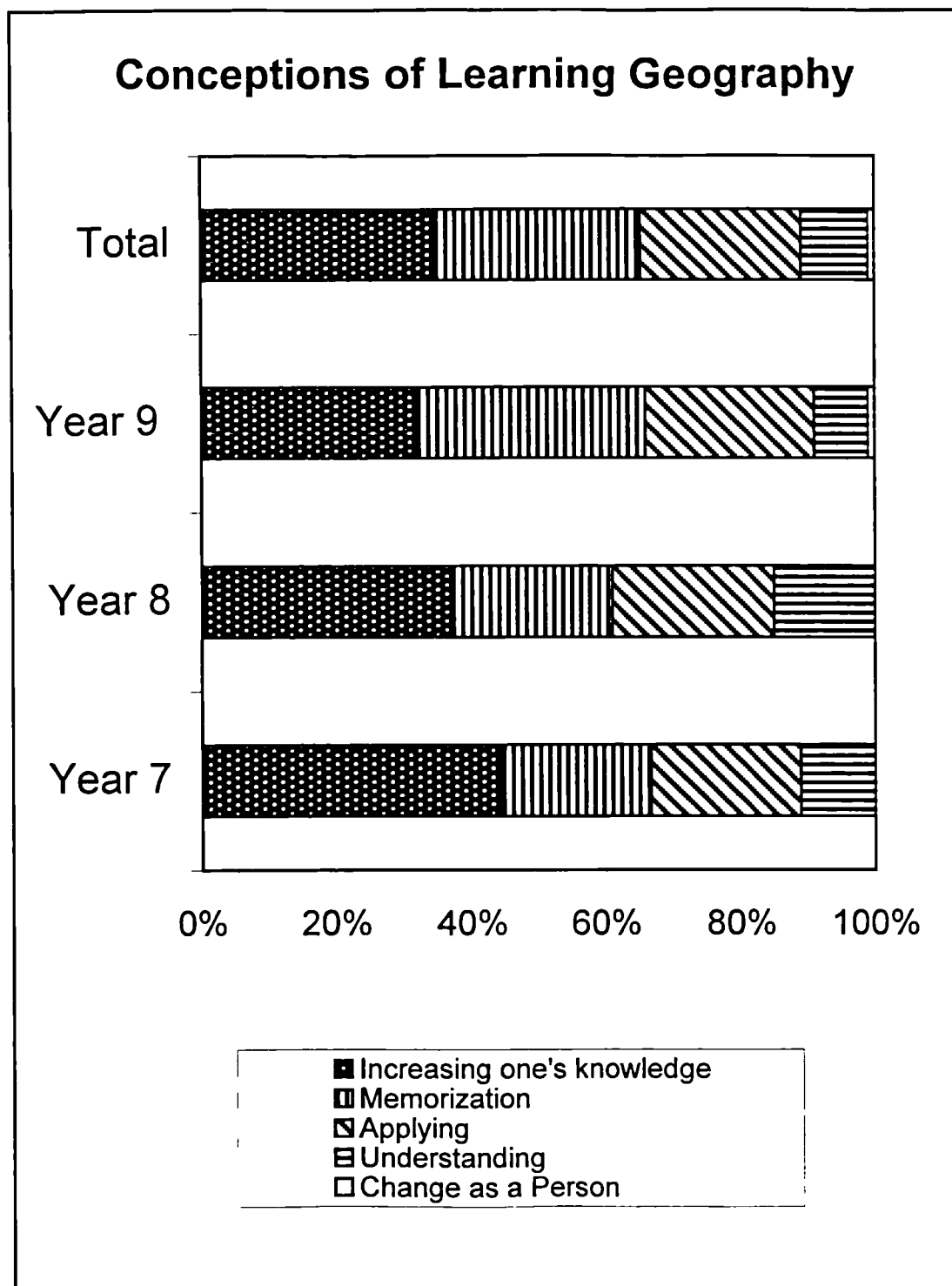
Figure 18: Conceptions of Learning Geography<sup>11</sup>

YEAR	Learning as increasing knowledge	Learning as memorising	Learning as application	Learning as understanding	Learning as change	Total
7	12(44%)	6(22%)	6(22%)	3(11%)	0	27
8	17(37%)	11(24%)	11(24%)	7(15%)	0	46
9	39(32%)	42(34%)	30(25%)	10(8%)	2(1%)	122
Total	68(35%)	59(31%)	47(24%)	20(10%)	2(1%)	193

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<sup>11</sup> In Figure 18 not all % total 100 due to rounding up

Figure 19: Graphical representation of conceptions of learning geography



## **CHAPTER NINE**

### **DISCUSSION**

#### **Introduction**

The literature review in Chapter 3 highlighted the relative paucity of research in pupils' understanding of geography and its learning at the general level. The results of this study relate directly to both of these.

The present research provides an insight into the meaning of geography and its learning from the 11-14 year olds' perspective. The outcome space of the conceptions discovered paint a complex picture held by pupils of both geography and its learning and indicate how these change over time. The categories of description of conceptions of geography and its learning are the researcher's attempt, as truthfully as possible, to identify the meanings that both these phenomena held for the pupils involved in the study.

This chapter presents a three-part discussion, commencing with the conceptions of geography, followed by conceptions of learning geography before drawing the various common strands together. The aim of this discussion is to bring together the main findings of this research into a coherent whole, to give emphasis, draw distinctions and to highlight what appear to be matters of significance.

## What is geography?

The meaning of geography has, in the geographical community, regularly been a focus for debate and discussion (Hartshorne, 1939; Holt-Jensen, 1980; Livingstone, 1992; Marsden, 1995; Unwin, 1996). Holt-Jensen (1980) contends that many individuals had a poor experience of school geography that left them with a very vague notion as to what geography is. He suggests that many people still believe that geographers must have to learn a host of facts, be able to draw maps and relate their knowledge to travel descriptions (*ibid* p1). Although these may have some truth in them, for Holt-Jensen, "they are the basic building blocks of the subject and not the subject itself" (*ibid* p2). Hartshorne provided a commonly used formal definition, "geography is concerned to provide accurate, orderly, and rationale description and interpretation of the variable characters of the Earth's surface" (1959, p21). Whilst Clark suggests geography is,

"the branch of knowledge concerned with the study of material and human phenomena in the space accessible to human beings and their instruments, especially the patterns of and variations in, their distribution in that space, on all scales in the past and present." (1985, p243)

Most recently in relation to schools, the GWG proposed a definition of the nature of the subject,

"geography explores the relationship between the Earth and its peoples through the study of place, space and environment. Geographers ask the questions where and what; also how and why." (DES, 1990, p6)

Haggett (1990), in considering the purpose and practice of geography, suggests that there are three essential geographical characteristics which underpin a definition of the subject: emphasis on location; emphasis on land and people relations; and, regional synthesis.

These statements reflect some attempts by geographers to come to terms with the concept of geography. However, they are context dependent and as such are set within the time they were written. Thus, for example, the idiographic trend reflected in area studies as evident particularly in pre-1960's geography was superseded by the nomothetic approach in the 1960's with a resulting change in the definition of the subject. As Gerber suggests,

"it has generally been assumed that the range of definitions of the concept of Geography that have been promulgated over time are the ones that people operating in different situations have internalised and accept." (n.d., p4)

He goes on to suggest that in his experience, despite the various publications espousing the aims of the subject, this argument is difficult to sustain (*ibid*). One has to consider that definitions of geography are most frequently written by those individuals steeped in the subject and therefore it should not be a surprise if those not so experienced in the discipline actually hold different conceptions.

In this study of 11-14 year old pupils, three conceptions of the subject were discovered: the traditional conception, an applied conception and an idealistic conception (p164). Within the first two of these conceptions, two distinct variations were identified based on the way the conception was organised (the structural aspect) and its substance (the referential aspect).

In common with Pattison (1963) and Gerber (n.d.) the outcome space of the three conceptions were viewed not as a hierarchy or continuum of understandings but as differing orientations of geography. However, there are some definite common threads to these conceptions:

- The focus on the importance of place.
- Concern for the environment.
- A recognition of the role of people.
- Recognition that geography can be studied following an inquiry approach.



In terms of the definitions presented above the conceptions are at variance on the whole with the traditional view of the subject. However the traditional conception appears to 'fit' Haggett's 'characteristics' particularly those related to location and people-environment relations.

The GWG definition also appears to have some resonance with the conceptions discovered. One could argue that due to various recent syllabus developments at A-level, GCSE and GNC that there is now an accepted view and hence stability as to what school geography is - a subject based firmly on the concepts of place, space and environment. The GWG stated this as,

"The study of place seeks to describe and understand not only the locations of the physical and human features of the Earth, but also the processes, systems, and interrelationships that create or influence those features. The study of space seeks to explore the relationships between places and patterns of activity arising from the use people make of the physical settings where they live and work. The study of environment embraces both its physical and human dimensions. Thus it addresses the resources, sometimes scarce and fragile that the Earth provides and on which all life depends; the impact on those resources of human activities; and the wider social, economic, political and cultural consequences of the interrelationship between the two." (DES, 1990, p6)

Thus, the traditional conception, which focuses on the interactions and interrelationships between people and their environment particularly through the study of place, can be clearly identified within the GWG definition. Although not part of their definition, the GWG described the purpose of geography as identifying issues and studying these through an inquiry approach (*ibid*) - similar to the applied conception discovered in this present research. The idealistic conception identified here however, although associated with the study of the environment, has a clear values perspective not evident in the GWG's definition.

The link between the three conceptions and the GWG's definition of geography rather than a more traditional view of the subject is not surprising. The GWG definition clearly informed the way that GNC was put together and subsequently this was translated into schemes of work by the department. As already noted (Chapter 6) the department adopted a people-environment approach when developing the Key Stage 3 course which required the study of various named places. Although not conscious at the time as to what effect this may have on the pupils' perspective of the subject it is apparent that certain aspects have been adopted by the pupils as identified in the categories of description for each conception.

The traditional conception clearly dominates the pupils' perspective across the whole Key Stage, from 89% of responses in Year 7 falling to 63% in Year 9, but averaging 74% of all responses. In contrast the applied conception starts from a small percentage 11%, rising to 32% by the end of the Key Stage (average 24%), whilst the idealistic conception only forms 5% of the responses in Year 9 (average 3%).

It could be argued that the traditional conception with its focus on place and people-environment relationships actually forms the core of geographical study, particularly at school level. Also, the traditional definitions of geography relate to these two notions although rarely using such terminology. Many of the pupils had experienced geography at their previous school in the form of topic work based around the wider study of a place, for example, Egypt, and this may have influenced their perspective of the subject.

It is also perhaps self evident that 11-14 year old pupils would only hold a fraction of what could be termed a 'definition of geography' as their experience of the subject is limited, in this case, to approximately two hours per week. Thus their encounter with the subject is based on teacher developed classroom activities and learning experiences, which aims to influence the pupils

perspective. In the present research this can be seen in the developing applied and idealistic conceptions which were only minimally present in Year 7. The overwhelming dominance of the traditional conception in Year 7 suggests that this was pre-held by the pupils, particularly as the majority of them were asked the question, 'What is geography?' at the start of their secondary schooling.

The widening of the conceptions held by the pupils suggests that the work they experienced as based on the department's interpretation of GNC did have some effect on their view of geography. However only forty out of one hundred and fifty one (27%) responses were outside the traditional conception suggesting that this view of geography has some resilience. Although there has been some development in the conceptions held by the pupils, due to the fragmentary nature of each individual conception this shift in perspective cannot be seen as part of a hierarchical framework as clearly the conceptions are not 'nested'.

I believe this research shows that teachers need to be aware of the conceptions of the subject held by their pupils before commencing on a programme of study. They perhaps also need to be aware of their own conception of geography before compiling such programmes. At HCTC, although we believed we were delivering GNC from a particular perspective, the effect of this (in terms of pupils overall understanding of what geography is) proved difficult to gauge and is only tentative at best. Thus clarity in the aims and objectives when planning both schemes of work and individual lessons is vital. Subsequently, these objectives and the expected outcomes of the planned learning experiences need to be clearly related to the pupils. By doing this over a period of time, a general wide ranging sense of the subject may be developed.

The next three sub-sections provide a discussion of the main issues relating to each of the three conceptions.

## **1. The traditional conception**

This conception has a clear academic focus concentrating on the study of place and the interrelationships between people and the environment. Two sub-conceptions were identified that correspond to the two facets of the whole conception noted. These sub-conceptions are seen as substantially different but not in a hierarchical or sequential sense, they present different approaches to the traditional conception.

The first sub-conception, the study of place based on factual knowledge, has a number of distinguishing traits. The category of description (page 166-178) indicates that the pupils view the study of place as important as geography is the only subject where this occurs within the curriculum. In terms of places the key knowledge deemed important by the respondents is basic factual information such as where the place is and, for example, its population. There is a strong suggestion from the quotes that this information is important to know but no reason as to why is provided. The assumption is that this is knowledge for knowledge sake. In terms of the type of knowledge there is also, as Holt-Jensen (1980) identified, a tendency toward the encyclopaedic but often the lists are disorganised catalogues of themes or places.

A slightly more sophisticated approach notes that there is a difference between the physical and human aspects of the subject (page 170). Yet in the case of the physical side this is typified more as a list of landscape features to be studied. The human element is similar but with an even more simplistic list. Each of these aspects of the sub-conception hints at the traditional approach to studying a place or region, via a list of features. This may be due to the approach undertaken by the department in the first term when studying the Home Region. In this unit the major physical and human features of the South East were studied. For ease of organisation and learning the unit was divided up into discrete sections that followed a traditional format - this being the first

experience of secondary school geography may have considerable influence on the pupils, however very few of them referred specifically to this as a reason.

Only two responses attempted to link and define the physical and human aspects of the subject as part of the whole of geography. The other responses give the impression of discrete aspects of the subject that are not linked. Again this may be due to the way in which some of the work was structured and the synthesis common in many definitions of geography was not explicit enough for the pupils.

The first sub-conception proved to be resilient across the three years, averaging 48% of all responses. A slight dip was evident in Year 8 and this may have been due to the way this year was structured, following a thematic format and using places as exemplars. Year 9 had the highest level of responses (51%) this may have again been due to the programme of study which in the Spring and Summer Term focussed on the two country studies required by GNC.

The second sub-conception focuses on geographical relationships with three types recognised: people-environment, people-people and environment-environment.

None of the responses are particularly complex but all show some development from a simple approach in Year 7 to a more detailed understanding in Year 9.

The people-environment relationship starts with simple, somewhat vague statements that relate to unspecified problems. As they develop, specific geographical factors are included that link people to the environment, such as the exploitation of resources. Within this aspect there is an underlying assumption that it is important to know what is happening in the wider world.

The people-people relationship is very focused in scope. Comments relate in the main to people's lifestyle or to population factors such as birth rate. A separate facet were the comments relating to tourism and its impact but again this is possibly due to the specific unit taught in Year 8.

The environment-environment relationships are least mentioned. These comments relate to the physical geography noted in the first sub-conception. However, they form part of the second sub-conception as they mention specifically the processes involved in the formation of the landscape and its features.

This sub-conception had a strong presence in Year 7 and 8 before tailing off in Year 9. In the first two years, after the first term, the programme of study was organised (Appendix F) thematically with a stress on processes and links between various geographical factors. The use of places was in the form of case studies representing concepts or processes rather than as an aspect of study in there own right. Thus this may have influenced the development of this sub-conception. The thematic framework continued into the Autumn Term of Year 9, however, the number of responses fell to 12%, possibly due to the country studies mentioned above.

## **2. The applied conception**

This conception suggests that geography has a relevant and practical use. It hints at an approach to studying the subject and suggests that contemporary issues are the focus of geography with processes and places having an underpinning role.

Two distinct sub-conceptions were identified, the systematic study of issues and a personal approach, both of these forming distinctive but equal aspects of the whole conception.

The systematic approach to the study of geographical issues had two elements of inquiry to it. At a very simple level the scientific approach was hinted at. This did not manifest itself in the hypothetical-deductive model but more through a holistic approach - 'a science of...' related to finding out and researching as the pupils had experienced in the context of science lessons.

The second approach was more typically geographical, following a 'route for enquiry' by asking questions such as what? how? and why? The inquiry questions although more closely linked to the issues studied were only partially developed throughout the Key Stage. This was disappointing as all the schemes of work were written following such questions (Appendix I) and these were frequently used as organising headings.

Through both methods of inquiry issues were the focus of study. Although some of these were related vaguely to countries, in the main they were specific either relating to places such as the tropical rainforest or themes such as flooding or earthquakes. Although one specific response did relate to current issues that had not been studied in school.

This sub-conception although limited in number of responses was fairly stable in frequency over the Key Stage. It was most popular in Year 8 (20% of responses) probably due to the nature of the programme of study, in particular units on the environment, energy and water which incorporated numerous issues.

Geography as a personal approach did not appear until Year 9 and has a practical and utilitarian flavour to it. The benefits of being able to read a map

and relating this to tourist visits formed the core of this sub-conception. However at a higher level, some reference to cultural awareness, which links this to the final conception, in the context of visits was made. Understanding how people live and behaving accordingly suggests a developing empathy amongst the respondents. The view of cultural awareness present in this sub-conception however focuses on self and how an individual may act when placed in a 'foreign' situation.

Interestingly, one response presents an overview of the use of the subject and suggests that it covers mostly everything (the synthesis aspect) and 'life would not be life without it.'

### **3. The idealistic conception**

Although the conceptions have been treated as orientations of the subject, this perhaps is the most complex of the three and does not develop until pupils have garnered enough experience of geography. This conception takes a critical and moral stance in the sense that it recognises the environmental damage people are doing to the world and suggests that by being informed there is something we can do to reduce this. It also indicates a developing respect for how others live and through this greater cultural awareness. This is different from the last conception as it explicitly relates to respecting how others live rather than viewing how one acts.

Although only vaguely developed, from the environmental perspective it represents what Huckle (1983) has termed 'education for the environment'. Pupils' awareness of the issues and the political decisions required for change are evident and they are developing their own attitudes that will allow them to make informed judgements. The conception appears to be related to what Naish sees as,



"the opportunity to develop their [children's] understanding, their abilities and their sense of values in such a way as to provide them with the autonomy to be genuinely critical in their thinking and be able to suggest and act upon initiatives to ensure the welfare of our small planet." (1986, p189)

## **Summary**

As Figure 20 indicates, the findings discovered here find familiarity with Gerber's (1992) research into student teachers conceptions of geography. He also discovered three main conceptions: academic, applied or practical and idealistic, but eight sub-conceptions. At the general level the conceptions are similar, the traditional relating to Gerber's academic and the applied and idealistic having the same meaning. Interestingly, although Gerber only used a sample of twenty trainee teachers he discovered that 50% held the academic conception, 30% the applied and 20% the idealistic - from individuals whom it could be said were steeped in the subject. Thus the academic conception was less pervasive than the findings presented here and the idealistic conception more developed, yet this may be due to this cohorts greater experience of geography. Gerber's study however was a 'snapshot' and therefore did not have a longitudinal perspective, thus it is impossible to gauge any change in this group's conceptions.

Walford (1996) undertook similar research with 105 Cambridge PGCE geography students between 1990-1994. His analysis of their definitions produced four categories that he termed spatialists, interactionists, synthesisers and placeists. Of these the interactionists were the most common (43%), this category relating to the second sub-conception of the traditional approach identified in the present research. Placeists who relate directly to the first sub-conception of the traditional category were least frequent (6%). Neither spatialists (scientific/objective) nor synthesisers were clearly identified in the

**Figure 20: A comparison of conceptions of geography**

Gerber's 1992 Conceptions		Present research conceptions	
Conception	Sub-conception	Conception	Sub-conception
Academic	<ol style="list-style-type: none"> <li>1. Knowledge of geography based on facts about places</li> <li>2. Knowledge of geography based on people-environment relationships</li> <li>3. Geography as approaches to spatial processes</li> </ol>	Traditional	<ol style="list-style-type: none"> <li>1. Geography as the study of place based on factual knowledge</li> <li>2. Geography as the study of relationships between people and the environment</li> </ol>
Applied or practical	<ol style="list-style-type: none"> <li>1. An academic approach to environmental issues</li> <li>2. A 'skills for living' approach</li> <li>3. An idealistic approach to issues</li> </ol>	Applied	<ol style="list-style-type: none"> <li>1. A systematic approach to the study of issues</li> <li>2. A personal approach</li> </ol>
Idealistic	<ol style="list-style-type: none"> <li>1. Natural order idealism</li> <li>2. Human-created idealism</li> </ol>	Idealistic	No sub-conceptions

present research. However as Walford noted the definitions were open to a variety of methods of analysis which he attempted, finally deciding due to exclusion to allocate them to one of the four groups mentioned (*ibid*).

### **Learning geography**

As outlined in Chapter 3, research into learning in geography has perhaps been the fastest growth area in school based studies in the last twenty years. As the literature review indicated much of this has been very specific in its focus, for example, place perception, concept development, spatial and environmental awareness, language and teaching and learning. None of the studies reviewed however actually focused on what it means to learn geography at a general level. In terms of research, as Daugherty points out,

"how much empirical evidence can we draw on of young people...in any...aspect of their geographical learning? Graves (1975) offered a useful overview of the research then available on children's learning of geography, but it is disappointing to note how sparse are the studies that have been undertaken since then." (1996, p211)

Thus unlike the issue of defining geography, discussion of learning geography from a pupil's perspective at the general level has not been evident in publications. Concern has been focussed more at the teacher level and the curriculum changes that have occurred during the last ten years (see, for example, Rawling and Daugherty, 1996; Kent *et al*, 1996; Tilbury and Williams, 1997). Even Teaching Geography, the practitioners journal, is typified by articles of the 'good idea' and 'how to' nature. Little, if any, discussion focuses on what learning geography means to the pupils who actually are the recipients of these experiences.

Thus, the present research undertook what it meant to learn geography from the pupils' perspective and identified, via the phenomenographic method, five qualitatively different conceptions. Learning geography was seen as:

- Increasing one's knowledge.
- Remembering/ memorizing.
- Applying knowledge/ procedures.
- Understanding.
- A need for change.

The categories of description presented in Chapter 8 outline the meaning each of the conceptions had for the pupils. The next five sub-sections consider the main features of each conception. Figure 21 is a diagrammatic representation of the logical relations of the 'how' and 'what' aspects of each conception and their structural and referential aspects (Chapter 8).

### **1. Conception A: learning as increasing one's geographical knowledge**

Learning in this conception has a vague, taken for granted nature. The focus of learning is geographical knowledge distilled as facts, often in the form of a list and always discrete. The facts are about places or human and physical aspects of geography. These may increase in detail and depth over time however, there is no discussion as to the purpose of learning such information - it is learning for learning's sake. The acquisition of the information is also a taken for granted process - it 'flies in' or is 'picked up'. The category of description suggests that there is no selection by the pupil, although some respondents use questions as a way of acquiring the knowledge. Others suggest it is undertaken via a series of learning activities such as note taking or reading but do not relate these to any selection procedure. This conception suggests a Platonic view of learning with the pupils' minds being empty vessels waiting to be filled up.

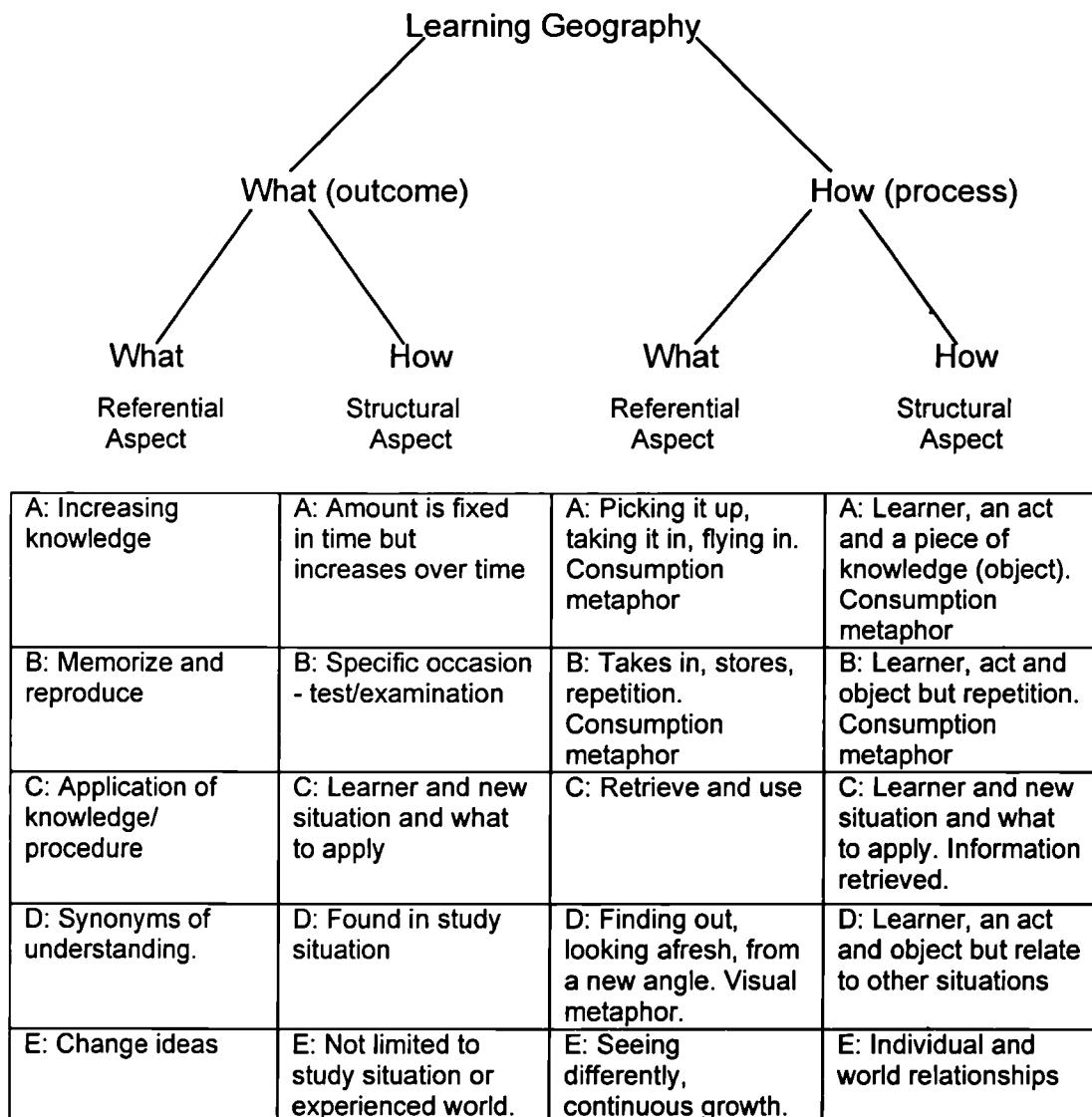
This conception was resilient across the Key Stage, declining from 44% in Year 7 to 32% in Year 9 with an overall average of 35%. The decline may be explained by the development of other conceptions, as the pupils become more aware of the wider implications of secondary schooling compared to their primary experience. It is perhaps however not surprising that the conception remained important as the pupils were being introduced to new aspects of knowledge throughout the Key Stage based on GNC.

## **2. Conception B: learning as remembering/memorizing**

This conception is similar to the first in that there is an acquisition of knowledge but differs from it in that the knowledge has an application. The purpose is clear, knowledge has to be remembered and reproduced for tests or examinations. However, this is not evident in Year 7 and the pupils hold only fragments of the conception. However, by Year 8 and 9 the respondents were focused on the reason for remembering, perhaps due to a developing awareness of SATs (although mistakenly in terms of geography). Reference to what is learnt is minimal but when mentioned, the information acquired in this conception is usually factual. Some respondents did however refer to remembering feelings about issues. The consumption metaphor is relevant in this conception as information is 'taken in', however, the process of repetition distinguishes it from conception A. The category of description alludes to the importance of rote learning in preparation for the expected tests, this in turn is related to the type of knowledge that is learnt.

This conception had the largest increase in responses over the Key Stage. However in Year 7 and 8 the frequency was fairly consistent at 22% and 24% respectively. In Year 9 this increased to 34% due to the perception of SATs on the horizon, even though these would not take place in geography.

Figure 21: The logical structure of the categories used to describe learning geography



### **3. Conception C: learning as application**

The focus of this conception is the application of knowledge or procedures that have already been acquired. The respondents noted a wide variety of situations, in which the application of knowledge or procedure occurs, thus distinguishing this conception from the latter. In terms of knowledge applied this mainly related to mapping at various scales although on occasions geographical themes were mentioned. Procedures referred to the detail in and structuring of work using guiding questions, working with peers, fieldwork and developing skills (particularly mapwork).

The situations in which application occurred varied. Some noted were specific such as writing essays and understanding current affairs. Others tended to be vague, general and unsophisticated, particularly when related to holidays. Some respondents mentioned the cross-curricular application of knowledge that proved helpful in French, science and English. The conception also had a futures element to it, various aspects of the subject being applied to the work situation.

The pupils held in general only fragments of the conception, this referring mainly to the 'what' aspect. Only two responses mentioned the 'how' element of the conception by suggesting how the information stored was retrieved for application. The inference was that the knowledge or procedure was 'known' and available for use when needed, although one response hinted at the constructive nature of learning which facilitated application.

This conception remained stable across the Key Stage increasing only 3% to 25% by Year 9. The reason for this is difficult to gauge from the category of description but perhaps the programme of study required this type of approach to learning in each year.

#### **4. Conception D: learning as understanding**

In this fourth conception the focus changes to the meaning imbued in the work rather than its acquisition and application. To achieve understanding requires explanation and reasoning and these in turn are developed through the use of inquiry questions applied to a new learning situation. The thinking process involved is made explicit by a number of the respondents with reference to terms such as sorting, working it out and exploring.

The geographical knowledge stated in the category of description goes beyond the basic factual and refers much more to the processes involved and hence requires explanation by the pupils.

Again though, the conception is held in a fragmented nature with greater focus on the 'what' aspect. How the understanding occurs is underdeveloped, with reference being made to working with peers and obtaining their perspective on the work in hand. Only minimal comment is made to seeing aspects of the subject from a different perspective.

This frequency of this conception varied across the Key Stage peaking in Year 8 at 15%. This may have been due to the programme of study in this year which followed an issues based thematic approach - both Year 7 and 9 had discrete place studies in them which may have influenced the pupils' perspective. Also it is likely that in Year 9 the memorizing conception was the dominant one.

#### **5. Conception E: learning as change**

This was the least developed conception of the five, occurring only in Year 9 with just two responses. This conception although underdeveloped, requires the individual to have a wider perspective of learning and relate this to situations



wider than their present experience. Through this it suggests that the individuals would be involved in some form of action, hence the reference to change. The brief category of description focuses on global environmental issues and hints at developing a sustainable way of living so to help future generations.

As noted this conception only occurred in Year 9 and formed 1% of responses. This may be related to the individual pupil's development in terms of experiencing geography and the introduction of such concepts as sustainability only late into the programme of study. These explanations are only tentative and require further research so as to be confirmed.

### **Relations between the conceptions**

The five conceptions discovered in the present research find resonance with work already undertaken in this field. Saljo (1979) identified five ways in which learning was conceptualised: as increasing knowledge, memorising, factual/procedural acquisition, abstraction of meaning and an interpretive procedure aimed at understanding reality. Whilst Giorgi (1986) also found five concepts of learning: acquiring new information, rote learning, application, understanding and getting a perspective on things.

Using this work as a basis Marton has expanded the conceptions of learning. In 1993 he published work undertaken with British Open University students which identified six conceptions of learning which were: increasing knowledge, memorising and reproducing, application, understanding, seeing something in a different way and changing as a person. Further research by Marton *et al* (1997) with Chinese school children has helped develop the understanding of learning. Although only four distinct approaches were discovered, the students' view of memory and understanding had a different perspective from the university students. At the superficial level words were memorised but this was only seen

as an initial step in a process that led to the full development of understanding of the phenomena in question.

In the present research, as with the conceptions of geography, although the pupils are experiencing the same phenomena (learning experiences/ content) these can be viewed from a different perspective. However, there are links between the conceptions identified and how these apply to perspectives of learning.

Conception A (increasing one's geographical knowledge) with its stress on acquisition can be seen as one end of a spectrum that has conception C (application) at the other. Conception B (memorizing), although involving both acquisition and application, differs from A and C in that the focus is much more specific it is aimed strictly at the school context and in particular tests and examinations. However, all three conceptions invoke the consumption metaphor when acquiring information, although conception B also has repetition as a feature that facilitates application.

Conception's D (understanding) and E (change) although different in focus do share common ground in that learning is about the search for meaning as opposed to the accumulation of knowledge.

Due to the paucity of some of the responses informing the categories of description it is difficult to suggest a hierarchy of conceptions and make generalizations about them (Marton 1993). However, using Marton and Booth's (1997) recent work it is possible to categorise them and relate these results to general approaches to learning. Figure 22 illustrates a categorisation of the conceptions.

Figure 22: Categorising learning conceptions

Conception:

A: learning as increasing one's knowledge	}	Learning as reproduction	Surface learning
B: learning as remembering/memorizing			
C: learning as applying knowledge/procedures			
D: learning as understanding	}	Learning as meaning	Deep learning
E: learning as change as a person			

The first three conceptions form one overriding category of how the pupils in this research conceptualise learning, they see

"learning as being intimately related to the actual tasks of learning: they describe learning with a focus on gathering facts and information...and possibly on memorizing them for later use." (Marton and Booth, 1997, p35)

The last two conceptions form a second category typified by those whom,

"see learning as finding meaning through the medium of learning tasks: they see things in a new light; they relate them to their earlier experiences; they relate them to the world they live in; they see learning as change in oneself in some way." (*ibid*)

The two groups also relate to the dichotomy between a surface approach and a deep approach to learning (Saljo, 1975; Marton and Saljo, 1984; Entwistle and Marton, 1984; Marton and Booth, 1997). In the former the learners, "have the discourse itself, the sign, as the focus of attention" (Gibbs *et al*, 1982), whilst in the latter the learners "were concerned with what the discourse was about, what was signified" (*ibid*). Although not fixed in the individual (Laurillard, 1979) the approach taken over a task, influences the quality of learning and outcome - the search for meaning or deep approach providing better learning (Marton and Booth, 1997). However as in the present research, these conceptions of

learning are seen as orientations rather than hierarchical and individuals can hold more than one of these and their perspective may change with time.

### **Drawing the threads together - implications for teachers**

The phenomenographic method of analysis dictates that a limited number of qualitatively different ways of viewing phenomena should be discovered. The research supports this notion as it has identified three distinct conceptions of geography and five conceptions of learning geography. Neither set of conceptions has been analysed in a hierarchical framework as this was not the purpose of the research (Chapter 1, 7 and 8) and the full picture of them provides the outcome space for each specific phenomenon (geography and learning geography).

Are there any links between each set of conceptions or individual conceptions from each phenomenon? Clearly the two phenomena, geography and learning geography are linked in that the context of the research was the same - an identical cohort experiencing GNC over the same time period with the same teacher. However the phenomena being investigated are different as indicated by the fundamental questions being asked i.e. what is geography and what is learning geography? The former focussed on the subject itself and the meaning this held for the pupils, whilst the latter concentrated on learning and what this meant in terms of geography. Thus, although the context for both phenomena is the same, they are different and hence as a set of conceptions cannot be compared.

It is, however, tantalising to suggest that there may be links between individual conceptions from the different phenomena. On the surface, it appears that the traditional conception of geography with its focus on factual information is directly linked to the learning conception of increasing one's knowledge. And

that the idealistic conception of geography is linked to learning as changing as a person. However, these assumptions are too easy to make involving only a cursory analysis of the meaning of the conception and categories of description. To assess the validity of any such assumption, the data requires further review under the guise of analysis in terms of a single phenomenon - which was not the purpose of the present research.

The outcomes of the research however have a number of implications for geography teachers and are related to aims and curriculum goals. They are considered here using three guiding questions - understanding the subject; understanding pupils; and planning work that maximises understanding and incorporates pace and challenge.

## **1. Understanding the subject**

The conceptions of geography suggest that the pupils understand the subject in a limited number of ways and that the traditional view focussing on place and people-environment relationships is dominant. The learning of the subject is seen in the main from a 'surface' perspective dominated by enhancing knowledge and memorizing.

In the present research the geography experienced by the pupils was based on GNC as interpreted by the department at HCTC. The approach developed was based on a people-environment perspective using a 'route for enquiry' that split GNC into a series of modules organised on a thematic and place basis. This, as seen through the conceptions reported, had an influence on the meaning of the subject for the pupils. However, it is difficult to gauge the level of influence as only one conception and one sub-conception (forming 11% of responses) were developed during the Key Stage 3 experience. The traditional conception was present in 89% of responses in Year 7 and 63% in Year 9. This suggests that

pupil formulation of the meaning the subject holds for them occurred before entry to secondary school. The cohort involved in the present research however had little previous discrete experience of geography (Key Stage 2 was not in place in their primary years) yet held conceptions of the subject. It is therefore difficult to state the source of these conceptions and one can only tentatively propose perhaps parental influence.

The findings and major lack of change in the perspective of the subject over the Key Stage also suggest resilience in the individuals' conception of geography. Thus, rather than study an introductory unit on 'What is geography?' or mapwork, it may be more fruitful if teachers discovered at the outset of Key Stage 3, and perhaps Key Stage 2, the pupils initial conceptions of the subject. This would then allow for development and clarification during the ensuing learning experiences. If, as at HCTC, the department espouses a particular philosophy and approach to the subject this needs to be made evidently clear in all aspects of planning and learning activities if any influence is to be had regarding the pupils' perspective of the subject.

The view of the subject as one that is learnt for reproduction and seen from a 'surface' perspective has clear implications for the planning of learning activities and will be discussed below. However, this perspective suggests a subject that is factual in nature requiring a large amount of content to be covered - a breadth rather than depth approach. As discussed in Chapter 2, the concern over content volume was an issue in the formulation of GNC and perhaps in the desire to ensure full coverage the department has taken a breadth perspective which has imbued a surface approach to learning. Teachers when planning need to consider this issue - do we wish a superficial encyclopaedic knowledge or a deeper understanding of the subject?

## **2. Understanding the pupils**

Perhaps the most interesting outcome of the research was the evidence provided that indicated that pupils of whatever academic ability think carefully about their learning experiences and hold individual understandings of what geography and its learning means. When spoken to on an individual basis pupils are concerned about how they are progressing and learning. In this cohort all expressed a desire to do well in geography and took an interest in their own learning.

The conceptions of geography held by the pupils indicated a limited view of the subject that proved difficult to change. However, the introduction of new a conception at Key Stage 3 suggested that certain individuals were developing their understanding of the subject based on increasing experience of geography. Thus it is likely that all pupils could be responsive to change if this process is made explicit. As part of this, pupils need to be aware of their own conceptions; teachers cannot expect them to be naturally reflective. If seen as important any change in pupils' understandings of geography has to be open and explicit with the reasons for this given. This is now perhaps more important than ever given the Key Stage 4 Dearing Review, and the fact that for many pupils their experience of formal geography could cease at the end of Key Stage 3.

The conceptions of learning geography indicate that pupils who are studying the same content and undertaking similar learning experiences hold different perspectives on what learning is. Although as already noted, learning as a surface and reproductive process is dominant. Perhaps this is not surprising given the stress placed on public performance in terms of examination results (of which pupils are aware) which in turn demand short-term reproduction and application of what has been learnt. The idea of lifelong learning or learning for learning's sake in terms of deeper understanding in the context of geography

was not really evident. Again this approach is not something teachers can just expect to occur by osmosis, any change in the perspective or way people learn has to be carefully explained and planned.

### **3. Planning learning experiences**

The major concern to arise from the present research is the dominant view of learning geography held by pupils as being one of reproduction and from the surface perspective. The focus on place and people-environment is not surprising when one considers the GWG definition of geography and how this manifested itself into the Orders. One also has to accept that these two facets are seen as part of the core of geography and elements that distinguish it from other subjects (Pattison, 1963; Haggett, 1990).

The biggest challenge for teachers is how to bring about better learning and prepare pupils for an ever uncertain but changing future. One aspect of achieving this is to bring about what Marton (1997) and others have termed deep learning,

"by adopting a deep approach [students] are known to pause and reflect over how the current passage relates to that which has gone. They try to discern different parts of the text, aim at finding out the main point of each, link the parts to each other and to the whole, and relate the content...to their own experience and what they have learned earlier." (*ibid* p168)

Thus (notwithstanding the GNC context), teachers need to carefully evaluate the way they plan schemes of work, individual lessons and specific learning activities and experiences. This may require the teacher in a re-evaluation of their own perspective of geography based on recent subject developments and research. They will have to make professional judgements based not just on



subject expertise but also on an awareness of pedagogy. In fact, teachers may have to go further than trying to develop a deep learning approach. To fully understand the learning process the teacher will have to take the part of the learner and see "the experience through the learner's eyes, become aware of the experience through the learners' awareness" (*ibid* p179). Thus as Kent (1996) suggests teachers should be "conversing with students, individually or in groups, as to how they found their geography lesson(s)" (p191).

### Conclusion

Kent (1997) recently claimed that the challenges facing the geographical community are great and geography teachers in many ways are at the forefront of these, particularly as pupils no longer are willing passive recipients of teacher centered knowledge. The post-14 Dearing Review has also provided them with greater subject choice than in the past and there is an expectation that they become lifelong learners. For geography this means challenging, what Kent (*ibid*) has termed its 'image problem', not just at the national level but perhaps more importantly at the individual pupil level. Bunce (1986) is particularly clear about this when he states,

"a significant updating, clarification and reorientation of geography's image is essential...we must kill once and for all, that geography is just about knowing - by emphasising deciding and doing are important too." (pp 331-332)

Eleven years on from this quote, the present research suggests that this is as much a concern now as it was then. However, developing our understanding of what our pupils understand by geography and its learning may help us to meet this challenge.

## **CHAPTER TEN**

### **CONCLUSION**

The research reported here presents a complex narrative focussing on how pupils understood the meaning of geography and its learning set within the context of the original GNC. The pupil cohort involved in this research were part of the first year group at Hugh Christie Technology College to follow a Key Stage 3 geography course developed by the department from the statutory GNC programmes of study and its attendant assessment requirements. Thus, the research is an attempt to respond to a number of concerns highlighted by McNamara regarding the role of the researcher and the, then recently introduced, National Curriculum as:

"becoming embroiled with the National Curriculum does not necessarily entail the abandonment of a critical and analytical stance; it does require addressing seriously how teachers teach and children acquire knowledge, specified by the National Curriculum, within the time and resource constraints of normal classrooms. Moreover, it is only by engaging directly with the National Curriculum that researchers are likely to generate findings or information which may actually be listened to and prove useful to teachers." (1990, p226)

The study presents an analytical commentary of the meaning pupils make of geography and its learning as discovered by the teacher-researcher in the setting of the 'normal' classroom. The context of the research is the department's interpretation of the statutory GNC and how this was translated into schemes of work and implemented in the classroom.

Chapter 2 presents the reader with a discussion of the formulation of GNC at the national level. This is to provide a system view of the context in which the present research is set and to outline the problematic nature of gaining agreement for a National Curriculum in Geography from all interested parties. The various perspectives discussed indicate a range of opinion as to the form and content of school geography held by individuals and groups within the geography education community. A commentary of specific aspects of the process from my own research diaries is also presented to indicate my concerns with the developments at the time, which in turn helped to clarify how GNC might be interpreted in my department. This chapter also indicates that a school and pupil perspective of geography was deemed unnecessary, with the Geography Working Group consciously not undertaking a substantial programme of school visits (DES, 1990) to discover and review the range of ongoing practice. However, the machinations of the interested parties and formal reviews of the Interim Report, Final Report and Draft Order, translated into a Statutory Order that still allowed for considerable interpretation by individual departments and geography teachers.

Chapter 6 continues the discussion of this process at the school level. It presents one department's approach to the interpretation and implementation of the statutory GNC. A chronological framework is adopted, with the main features of the process summarised in a series of matrices (Figures 12-15). A description of how the department developed its own programmes of study and assessment procedures in the preparatory and first three years of GNC is outlined. This is followed by a consideration of the three major issues faced by the department when implementing GNC - staffing, curriculum planning and assessment. The outcome of these activities was the departmental Key Stage 3 framework (Appendix F) and a developing range of schemes of work (Appendix I) plus various assessment procedures (Appendix H). The views of individual staff are presented to provide further contextual information regarding the outcome of the study.

The detailed discussion of the formulation and implementation of GNC at the system and department level, alongside the presentation of the setting and nature of the school (Chapter 5) provides the reader with an understanding, at a number of levels, of the context in which the research is set. As McNamara suggested the implementation of the National Curriculum would take many forms and a range of outcomes could be expected (*ibid*). It is therefore important to make as clear as possible to the reader the framework and circumstances within which the research is set so they may judge the validity of the findings.

Research on GNC in schools is discussed in detail in Chapter 3 as part of an overall review of learning and the geography curriculum. Much of the research into GNC has investigated the departmental response (Roberts 1991; 1995) to its implementation, as discussed in the present research in Chapter 6. The findings presented indicated a range of responses to GNC dependent on context and the philosophical perspective held by departments (Fry and Schofield, 1993; Roberts, 1995). The issues forthcoming from these studies were similar to those present in this research as noted above and in Chapter 6. However, none of the studies reviewed focussed upon the pupils' perspective of geography and its learning within the context of GNC, although Daugherty (1996) suggested that there is a need for such investigations if those in the geography community are to understand how learning develops in the subject. Thus, the present research attempted to partially address this situation through focussing on two fundamental questions, 'What is geography?' and 'What is learning geography?' It investigated the meaning that these held for pupils who were part of the first cohort studying the actual Key Stage 3 geography curriculum at Hugh Christie Technology College.

Intertwined in this contextual picture was my own personal development as a teacher and researcher during the seven and half years of the study. In the Stenhousian sense my role during the process was one of teacher as

researcher (1975). Although not specifically reported in this study, my research diaries record the development of reflective practitioner in both the teaching and research context. This is evident in Chapter 1 where I describe and explain the filtering process involved in this study. This narrowed the focus of the research from an evaluation of GNC and all its influences in the context of one school department, until the understanding and experience of GNC from the pupils perspective became the core of the study.

Thus the first section of the thesis provides the contextual setting for the findings that were the outcome of the phenomenographic method adopted in the analysis of pupil data, and it is to a consideration of this that the conclusion now turns.

## **Methodology**

The methodology adopted in this study is pluralistic. The research is essentially a case study in the classic Adelman (1976) sense: an issue or phenomena on which to focus the research exists, namely GNC. The naturally occurring case is then selected for study, (a number of specific classes making up the pupil cohort), and this represents an instance from the whole class, (the year group). However, as described above and in Chapter 1, the pertinent research questions relating to the given issue were modified. This was due to the adoption of a more pragmatic approach based on further personal reflection informed by a continually developing understanding of the empirical and conceptual aspects of the study.

A significant point in my understanding that formulated the pluralistic methodology, was the decision (after two years of data collection) to use phenomenography (Chapter 4) as a way framing the research questions and analysing the responses. This led to the delimiting of two phenomena

(geography and learning geography) for investigation and analysis. In the three-year longitudinal study, the breadth of these phenomena and how they changed through time, as understood by a sample population (the case) of Key Stage 3 11-14 year old pupils, were recorded and mapped within the context of GNC and its interpretation at HCTC. A range of methods, including diaries and semi-structured interviews, that best fit the sample population, was applied so as to obtain the data necessary for analysis. The analysis in turn followed phenomenographic principles, aiming to *discover a limited number of qualitatively different ways in which each phenomenon was understood and providing anonymity to the individual*. The results of this are seen in the form of conceptions, not attributable to particular individuals, with the categories of description providing a detailed description of each in turn. The adoption of phenomenography, as discussed in Chapter 4, was partially in response to the often-noted concern surrounding the generalizability of findings of qualitative research. Though it is recognised throughout this study that phenomenography in its pure form is, in this sense, in some tension with the characteristics of case study research. The findings however can be related back to the case: they have implications that can be interpreted in particular contexts. It is to the findings that I now turn.

### **Key Findings**

Of central interest among the findings of this study is that 11-14 year old pupils, who experienced the first version of GNC, understand the meaning of geography from three viewpoints: what I have called the traditional, applied and idealistic. As the responses reveal (Chapter 7 and 9), these conceptions do change over time but the traditional perspective with its focus on place and people-environment relationships is resilient throughout. The three conceptions together form the outcome space of the question, 'What is geography?' They

are not seen as hierarchical or as part of a continuum but as differing orientations of the subject similar to those identified by Gerber (1992).

As the context of the study was GNC as interpreted by one department, and the GWG definition of the subject stressed the study of place and environment it is perhaps not surprising that the pupils held these conceptions.

However, the influence of GNC in Year 7 is questionable as over 80% of the responses, alluding to the traditional conception, were held by pupils on entry to the school. They had not followed GNC at primary school as it had not been implemented prior to 1991 and thus they had been influenced from other sources. Although not reported in detail here, a number of pupils had mentioned that they had studied topic work at primary school and this may have had an influence on their view of what geography is. Clearly an unknown factor would be the influence of parents and other family members, particularly as a number of pupils were studying geography for the first time as a discrete subject at secondary school and may have been asking questions as to what this would involve.

Throughout Key Stage 3, the departmental interpretation of GNC adopted a people-environment framework and teaching approaches using a 'route for enquiry'. Places were taught as discrete units and as exemplars in thematic units. The categories of description portray the influence the work had on the individual pupils, although only one new conception and sub-conception were discovered during the Key Stage. Thus, although difficult to judge, the level of the department's influence on the pupils' understanding cannot be ignored, irrespective of the researcher's attempts to bracket his own understandings when discussing the questions with the respondents. How other subjects and teachers presented geography, for example, through mapwork in history and earth science in science may have been influential. However, although this cannot be rejected, this research presents no evidence to support such an idea

and few, if any, pupils mentioned this in their responses (which is not surprising, as this was not an interest of the research).

A further influence on the pupils' conceptions of geography could be the media, in particular their representation of environmental issues and 'disasters', although the research has no evidence to either support or reject such a notion.

The second major strand of the research was the discovery that learning geography is viewed from five qualitatively different perspectives with the dominance of a group of conceptions focussed on reproduction and surface learning. In particular, conceptions relating to the acquisition of knowledge and its memorizing were particularly common throughout the whole Key Stage. Of the two conceptions relating to deeper approaches to learning, the first was only held by an average of 10% of respondents and declined during the Key Stage. The latter only appeared in Year 9 and was limited to 1% of responses.

The teaching and learning styles adopted to deliver the lessons, influenced as they are by the departmental interpretation of GNC, should be prevalent on pupils' conceptions. Although not made explicit to the pupils, the department did aim to develop understanding of geography through the adoption of a people-enquiry framework based on inquiry learning, however the findings presented here suggest this was not achieved. The interpretation of GNC involved the coverage of a large amount of content (Chapter 6, Appendix F and I) and perhaps the resulting schemes of work and lesson plans did not, in reality, reflect fully the aim of developing understanding. There was evidently something of a rhetoric-reality gap in the way that learning geography was presented to pupils.

Although not investigated, learning in a surface way, using reproductive approaches, may well be typical of learning in the majority of school subjects and thus pupils may hold such conceptions irrespective of discipline.



The research did not intend to discover the reasons for the conceptions held and only tentative suggestions related to the nature of the learning experiences and pupils' perceived importance of examinations could be inferred as explanations for the outcome space. Thus investigations into learning is an area requiring further research.

It might be argued therefore, that the results of the research describe the outcomes of a programme of study developed to deliver GNC and the methods used to present this to the pupils. However, the outcome, as conceptions of geography and learning geography, resulted from helping pupils seek the meaning of geography and its learning from their experience via the methods employed. The relationships discovered in the conceptions providing a broad understanding of geography and its learning within the context of the department's interpretation of GNC and its delivery.

### **Utility**

The research findings presented here provide the practising teacher with a perspective on the meaning geography and learning geography has for pupils of a certain age group who are following GNC. Hence it could provide a basis from which to further develop teachers' appreciation of and sensitivity to pupils' general understanding of the subject. It is even conceivable that the conceptions presented could be given to pupils, in a simplified form, at the start of a course to allow them to identify their perspective of geography. Teachers could then use the results of this as a basis to plan curricula to facilitate a broadening understanding of the subject. The research suggests strategies which teachers could use to investigate pupils' conceptions. For example, at a smaller scale such an approach could be used to investigate specific geographical concepts.

The findings also highlight the thorny issue of 'breadth versus depth' that perhaps requires greater attention when planning, particularly in the use of place as exemplars. In the formulation of GNC (Chapter 2) much time was spent discussing the issue of place and although this is accepted as being a distinguishing feature of geography the selection of places to study is still problematic. Perhaps by using a planning procedure that explicitly focuses on a balance of the deeper and surface approach to learning, teachers may start to address this problem. Thus, learning the place names on the world map may be seen as open to surface learning approaches in contrast to learning about the development of cities or environmental pollution.

The resilience of some of the conceptions over time also poses questions about how we view progression in geography, an issue Daugherty (1996) has already suggested we know very little about and one that needs careful consideration when planning work.

The study strongly illuminates the care and interest pupils have in their work and progress they are making, particularly when spoken to on an individual or small group basis. Teachers could develop such an approach perhaps linked to flexible learning (Hughes, 1991) and target setting in an attempt to improve pupils learning in geography.

Understanding the pupils' perspective should assist teachers in clarifying their own conceptions of geography through the reflexive process. As Roberts (1995) has shown there are a number of ways in which to interpret and present GNC. The discovery of geography teachers' conceptions would help clarify the philosophical base from which a department develops programmes of study and in turn assist staff to deliver material in a manner consistent with others in their school. It could also help in the continuing professional development of staff as they discover their own and different perspectives of geography.

Having knowledge of pupils' conceptions, particularly those of learning geography, will assist in the planning and development of teaching and learning activities. Through an understanding of deep and surface learning approaches a variety of activities can be developed that pay particular attention to differentiation with reference to task, resources and outcome. The style of learning required by certain activities could also be made explicit, similar to the way aims of lessons are communicated to pupils. The focus on learning, as well as content, may result in the pupils becoming more proactive in their own learning rather than just passive consumers of geographical information. This is in line, and capable of supporting, a range of contemporary initiatives across the curriculum including 'philosophy for children' in the USA and 'cognitive acceleration in science education' (CASE) in the UK, both of which (though in different ways) rely on the promotion of metacognition in the learners.

In the case of Hugh Christie, the context in which this research was undertaken, the following are judged to be the key implications arising from the findings:

- The department needs to reconsider its philosophical position regarding the nature of geography and its learning. In particular, reviewing the role and balance of 'place' in comparison to 'environment' and agreeing a 'common' approach amongst the staff to the subject.
- Greater clarity and understanding of the intended learning outcomes when planning teaching and learning activities is required. The outcomes need to be made explicit to the pupils.
- The 'route for enquiry' style of planning and delivering learning activities requires evaluation to determine its efficacy.
- Attention needs to be given to the nature of the content being delivered and how this is most effectively learnt.
- Pupils think carefully and are concerned about their performance and progress. Thus, high quality staff-pupil relationships are paramount if teachers are to gain a better understanding of the individuals they teach.

In conclusion, the work of the department should focus on how GNC is most effectively delivered to ensure that the perspective of geography it wishes to convey is internalised by the pupils. It also should attempt to develop deep learning approaches so as to foster a greater and longer lasting understanding of the subject and continue to develop and improve the staff-pupil relationship.

This research is unable to follow the story further. It is for a subsequent study to determine the practical utility of the findings through the examination of their application.

### **Further Research**

The present study has revealed conceptions of geography and learning geography held by a cohort of 11-14 year old pupils experiencing the first three years of GNC as interpreted by a single department. The findings relating to the meaning of geography, although set firmly within context, have an affinity with other work undertaken by Gerber (1992) and Walford (1996). All these studies however, were conducted with a relatively small cohort and thus a focus for further studies would be to increase the sample size encompassing a number of different schools in different educational settings, including cross-cultural. It would also be interesting to engage in a longer longitudinal study than presented here, and follow those pupils who continue to study geography post-14 to see if and how their conceptions of geography changes.

This research has shown that the conceptions of geography held by pupils differ from traditional definitions of the subject and thus a productive area of research would be into the expert versus lay conceptions of geography. Pupils on entry to secondary school already hold conceptions of the subject suggesting that a research focus with younger children would also elicit important data.

The learning conceptions discovered have shown a tendency to view geography from a surface and reproductive standpoint. This clearly could be a result relating only to this single case study, so research mirroring the suggestions above is needed in this area. Further work could focus on producing and evaluating geographical materials based on GNC that developed a deep approach to learning. This could be related to a longitudinal study of monitoring conceptions of learning geography.

The present research, although alluding to the influence of departmental interpretations of geography syllabuses on pupil conceptions, presents no hard evidence to support or reject such an assumption. The role of the teacher in this study has been one of teacher-researcher who, in the true phenomenographic tradition, bracketed his own beliefs. However, in the normal course of events the teacher's perspective should be influential and thus it would be beneficial to investigate teacher conceptions of geography and its learning and how these influenced the interpretation of GNC.

### **Finally**

The journey that commenced in October 1990 and has now reached a conclusion, though it has involved many interesting 'side roads' and a few 'dead ends', certainly provided me with an enlightened perspective on pupils and their views towards geography and its learning.

It has made me think deeply about my own perspective of geography and its learning. I have also frequently questioned what has been the influence of my own beliefs on my actions in the classroom. This, although the research is complete, will not end. Yet I am unsure as to whether I will ever find suitable answers, as the work completed has presented me with more intriguing

questions than I originally started with, in particular related to learning both in geography and in general.

The present work however commenced with an observation by McNamara and I would hope that it has met a further concern of his, namely that it,

"think[s] critically and analytically about the problems of teaching and learning within busy classrooms...[and is] able to provide the teacher with worthwhile information which may be pertinent to her practice and equally to make evaluative judgements about whether or not the dramatic changes which are now being wrought within the educational system, do in fact lead to improvements in the quality of both teaching and learning." (1990, p233)

If seen by the reader from this perspective the destination I sought at the outset will have been reached and the journey a worthwhile and productive one.

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## Appendix A: National Curriculum Geography Working Group Terms of Reference

### NATIONAL CURRICULUM GEOGRAPHY WORKING GROUP

#### TERMS OF REFERENCE

##### Background

1. The Education Reform Act 1988 provides for the establishment of a National Curriculum of core and other foundation subjects for pupils of compulsory school age in England and Wales. The Act empowers the Secretary of State to specify, as he considers appropriate for each foundation subject, including geography, that there should be clear objectives - attainment targets - for the knowledge, skills and understanding which pupils of different abilities and maturities should be expected to have acquired by the end of the academic year in which they reach the ages of 7, 11, 14 and 16; and to promote them, programmes of study describing the content, skills and processes which need to be covered during each key stage of compulsory education. Taken together, the attainment targets and programmes of study will provide the basis for assessing a pupil's performance, in relation both to expected attainment and to the next steps needed for the pupil's development.

2. Both the objectives (attainment targets divided into up to 10 levels of attainment) and the means of achieving them (programmes of study) should leave scope for teachers to use their professional talents and skills to develop their own schemes of work, within a statutory framework which is known to all. It is the task of the Geography Working Group to advise on that framework for geography.

##### The Task

3. The Working Group is asked to submit an interim report to the Secretaries of State by 31 October 1989 outlining and, as far as possible, exemplifying:

- i) the contribution which geography should make to the overall school curriculum and how that will inform the Group's thinking about attainment targets and programmes of study;
- ii) its provisional thinking about the knowledge, skills and understanding which pupils of different abilities and maturities should be expected to have attained and be able to demonstrate by reference to defined levels of attainment, at key ages; and the profile components



- into which attainment targets should be grouped; and
- iii) its thinking about the programmes of study which would be consistent with the attainment targets provisionally identified.

4. By 30 April 1990 the Working Group is to submit a final report to the Secretaries of State setting out and justifying its final recommendations on attainment targets and the programmes of study for geography.

#### Approach

5. In carrying out its task the Group should consult informally and selectively with relevant interests and have regard to the statutory Orders on mathematics, science and English and to the work of the other subject groups - design and technology and history. Additionally, the Group should take account of:

- i) the broad framework for assessment and testing announced by the Government on 7 June 1988 and subsequent development of it in the light of advice from the School Examinations and Assessment Council;
- ii) the contributions which geography can make to learning about other subjects and cross-curricular themes including, in particular, environmental education, and which they in turn can make to learning in geography;
- iii) best practice and the results of any relevant research and development; and
- iv) the issues covered in the supplementary guidance to the Group's Chairman.

Appendix B: Supplementary Guidance to the Chairman of the Geography Working Group

SUPPLEMENTARY GUIDANCE TO THE CHAIRMAN OF THE GEOGRAPHY WORKING GROUP

1. This note amplifies some of the points outlined in the Working Group's terms of reference.

Attainment targets, levels of attainment and differentiation

2. The attainment targets are expected to provide specific objectives so that pupils, teachers, parents and others have a clear idea of what is expected, and a sound basis for assessment and testing. They should allow scope for the very able, those of average ability, and the less able to show what they know and can do. To this end, each target should be divided into up to 10 levels of attainment by reference to which pupils may demonstrate both progress over time and differences in ability. It should not be necessary to have different attainment targets for children of different abilities. The targets at each level should be capable of assessment and challenge each child to do the best that he or she can. They should raise expectations, particularly of pupils of middling and lower ability, as well as stretching and stimulating the most able. The Working Group should give particular thought to the application of attainment targets to lower attaining pupils and those with special educational needs. In advising on attainment targets, the Working Group should attempt to cover all areas of geography and justify fully any recommendation that specific targets are not appropriate for particular aspects, or that an attainment target should not apply to all 10 levels of attainment.

Programmes of study

3. The programmes of study should provide a description of the content, skills and processes which all pupils need to be taught so that they can develop the skills, knowledge and understanding they will need to progress through school and eventually to adult life and employment. The programmes of study should be related to each level within an attainment target.

4. The study of geography in schools should enable pupils to develop a sense of place, an understanding of the relationships between places and an appreciation of the value of maps. It should create a framework of knowledge and understanding about pupils' home areas and about other places within Great Britain. It should be related to wider perspectives - of the world as a

whole, its continents and oceans, and the place of Britain and Europe within it - so that pupils are able to put information and experience in a geographical context. Overall, it should enable pupils to develop an informed appreciation and understanding of the world in which they live.

5. Geography should foster pupils' understanding of, and respect for, natural environments. Pupils should learn how physical conditions such as climate and natural resources both influence human activities and are affected by them. Geography should also help pupils to gain a knowledge of ways of life and cultures other than their own and to understand and appreciate the similarities and differences. It should also help them to understand the physical, economic, political and cultural relationships that link peoples living in different places throughout the world.

6. The study of geography should give due weight to the physical processes and human actions that bring about changes on the Earth's surface and the ways in which these changes may affect peoples' lives. It should lead pupils to examine and understand the ways in which people use the Earth and its resources in making their living and seeking to improve the quality of their lives. Particular attention should be given to the impact of human activities on environments and the real costs and benefits of different activities.

7. The programmes of study in geography should reflect the emphasis which must be given at each key stage to the content of geographical knowledge and should lay the foundation for the progressive development of the skills and processes of geographical enquiry. This means collecting, analysing, interpreting and reporting evidence obtained both at first hand - including through pupils' own experiences of travel - and from secondary sources such as maps, books, photographs, satellite images, diagrams and statistics. They should allow for appropriate use to be made of material drawn from the local area. At the same time, the Working Group should consider the contribution field study can make in providing geographical experience for pupils of different ages. Above all, the programmes of study should reveal to pupils that geography is interesting, exciting and enjoyable as well as having direct application in their daily lives.

### Special needs

8. The Education Reform Act 1988 provides that where a pupil has a statement of special educational needs under the 1981 Education Act, the statement should specify any National Curriculum requirements, including assessment arrangements, which should not apply or should be modified for that individual pupil.

In addition, Orders or regulations under the 1988 Act can define the cases or circumstances in which the application of the National Curriculum provisions may be modified or disapplied for any foundation subject. The Working Group should consider and advise on whether any such adaptations would be appropriate and justified in the case of geography.

#### Links with other subjects

9. By its nature, geography has links with many subjects across the curriculum. To an extent which is unique among the core and other foundation subjects, the content of geography and the techniques and methods it uses extend across the arts and the sciences. Geography can therefore contribute to learning in other subjects in a distinctive practical and interesting way while being itself promoted by work in those fields. There are clear links, particularly, with science, mathematics, design and technology, including information technology, and history. In the case of mathematics and science, the Working Group should identify any overlap of interests with the attainment targets and programmes of study that have been established. The Working Group's task is to impart a distinctively geographical dimension to learning in the areas concerned. The Group's attention is drawn particularly to science AT2 (The variety of life), AT5 (Human influences on the Earth), AT6 (Types and uses of materials), AT9 (Earth and atmosphere), AT13 (Energy), and AT16 (The Earth in space). Geography also has links with cross-curricular matters such as economic and political understanding, and bears a heavy responsibility for environmental education and the European dimension in education both of which are the subject of Resolutions of the Council of Ministers of the EC to which the UK is a party. The Working Group should take these and other reciprocal connections into account in its recommendations for attainment targets, programmes of study and related assessment arrangements for geography, bearing in mind in particular that all subjects should promote the development of good written English and numeracy. The overriding consideration should be that clear attainment targets and programmes of study are set for geography so as to ensure progression and coherence in what is taught.

#### Ages and stages; time allocations

10. The Working Group should assume that all pupils, other than any whose statement of special educational needs under the Education Act 1981 specifies otherwise, will study geography throughout their compulsory schooling and many are likely to take a GCSE in geography or a subject which will involve a substantial element of geography approved against relevant GCSE criteria.

11. In framing its recommendations the Working Group should assume that in England normally the equivalent of some 3-4 periods of a 40 period weekly timetable will be available for geography during years 1-9 ( ie normally primary school and years 1-3 of secondary school); the Group should not however assume that timetables will be thus organised in 40 period weeks, nor that they will be based on tuition every week in geography. Beyond the 9th year - ie for pupils in years 4 and 5 of secondary school - the amount of time required will depend upon whether a GCSE or equivalent examination course in geography is being followed. Where it is, the Group should assume, on average the equivalent of 4 periods in a 40 period week. For other courses, including non-examination courses, the Group should assume that on average the equivalent of 2 periods a week will be available for geography; the essential requirement is that the geography studied should provide for worthwhile progress beyond what has already been achieved at the end of key stage 3. For pupils in Wales, the Group should assume that geography should continue to occupy the time typically available for the subject at present in schools in Wales. For key stage 3 this should be taken as the equivalent of two periods in a 40 period weekly timetable. For key stage 4, the Secretary of State for Wales would wish the full range of attainment targets and programmes of study to be available to pupils in Wales on the same two bases as in England. The Group should take advice from appropriate organisations in Wales about the degree to which it might be necessary for attainment targets and programmes of study to differ in Wales.

### Assessment

12. Attainment targets and more specifically the statement of attainment associated with each attainment level, will provide objectives against which pupils' progress and performance can be assessed. The main purpose of such assessment will be to show what a pupil has learnt and mastered, so as to enable teachers and parents to ensure that he or she is making adequate progress and to inform decisions about the next steps. The targets, and the associated statements of attainment for each level, should therefore be sufficiently clearly specified so that they are capable of assessment and each conveys a unique description of the required attainment regardless of the age at which a level is reached. The Group should also indicate the range of attainment, as reflected in the statements of attainment it recommends for each level, which might be expected of pupils of different abilities and maturities during each of the four key stages.

13. The main focus of the Group's work will be on attainment targets and programmes of study. However, it should take account of the broad framework for assessment and testing announced by the Government on 7 June 1988 in response to the reports of the Task Group on Assessment and Testing which included

recommendations for the work of subject groups. In particular the Working Group should offer advice in broad terms about assessment and testing in relation to the attainment targets recommended, the grouping of those targets into profile components for purposes of reporting the results of assessment, appropriate methods of assessment and testing for the attainment targets it recommends, and in particular what might appropriately be measured by nationally prescribed tests including written tests.

### GCSE

14. Not all pupils will take GCSE examinations in geography as such. However, in defining attainment targets and programmes of study the Working Group should take account of the GCSE National Criteria for geography so far as these are consistent with the approach in the terms of reference. The School Examinations and Assessment Council will be asked to advise on whether, and if so how, the GCSE criteria need to be revised to reflect the National Curriculum attainment targets and programmes of study for key stage 4, both for pupils pursuing a full programme and for those spending less time on geography, and to approve syllabuses accordingly.

### General principles

15. Generally in framing recommendations, the Group should consider the need for

- continuity and progression throughout the period of compulsory schooling and beyond
- breadth and balance
- relevance: the content and teaching of the various elements of the National Curriculum should bring out their relevance to and links with pupils' own experience and background and their practical application and continuing value to adult and working life
- all elements of the curriculum to contribute to the development of general personal qualities and competencies in young people which will be of value to them in adult and working life - for example, self-reliance, self-discipline, a spirit of enterprise, a sense of social responsibility, the ability to work harmoniously with others and an ability to apply knowledge and use it to solve practical real life problems.

16. It will be important to bear in mind that the curriculum should provide equal opportunities for boys and girls. The Group should also take account of the ethnic diversity of the school population and society at large. Further guidance will be given on particular points to be considered in order to avoid unnecessary difficulties for children with special educational needs.

### Wales

17. The Group will need to bear in mind that the Secretary of State for Wales wishes them to recommend a framework of attainment targets and programmes of study which would be usable, with the necessary adaptation, in Wales.

### Implementation

18. In England, Orders have been made under the 1988 Act requiring the core and other foundation subjects, including geography, to be taught from Autumn 1989 to most pupils for a reasonable time in each of the first three key stages (i.e. years 1-9). In Wales this requirement applies to core subjects from Autumn 1989; to foundation subjects from Autumn 1990. For pupils with statements of special educational needs the requirements will be introduced from Autumn 1990. The requirement will be extended to pupils in the fourth key stage (years 10 and 11) at a later date.

19. Statutory attainment targets and programmes of study are likely to be introduced from Autumn 1991, starting with key stages 1 and 3.

### Appendix C: Inter-rater reliability test

#### • THE ACADEMIC [TRADITIONAL?] CONCEPTION OF GEOGRAPHY

Geography in this conception has a clear academic focus concentrating on the interactions and interrelationships between people and their environment particularly through the study of place. Places are studied through the acquisition of knowledge that is constructed as facts and concepts-both physical and human, and the development of skills particularly mapwork. The range of places illustrated is of a concentric nature from the simple/ small e.g. local, through to the more complex/ large e.g. global. It also focuses on the inter-relationships between people and environment, which is exemplified with reference to, processes present in the physical and human environments and to the concept of change. This element includes people-environment and people-people relationships.

Within this general conception three distinct sub-conceptions were recognised:

1. - geography as the study of place based on factual knowledge
2. - geography as the study of relationships between people and the environment
3. - geography as an approach to the study of place and people-environment relationships

#### • THE APPLIED CONCEPTION OF GEOGRAPHY

A second conception was evident, one that may be termed the applied conception. This involves the study of geography as it manifests itself in a series of issues and uses a form of inquiry based on questions such as what, where, why and how. This differs from conception 1 as it suggests the study of geography is more than utilitarian in that it has a useful function for people. Places, processes, concepts and generalizations are still evident however these form the basis underpinning the major area of study i.e. the issue or problem. Relationships are also still evident in this approach, however again they are the underpinning rather than the main focus of study.

Within this general conception two distinct sub-conceptions were recognised:

1. - a systematic approach to the study of issues
2. - a personal - practical approach

#### • THE IDEALISTIC CONCEPTION OF GEOGRAPHY

The third conception discovered is termed the idealistic conception of geography. This conception is typified through meta questions, often



environmentally based, about the planet and the effect people are having upon it and the consequence of these actions now and in the future. There is a degree personal feeling towards what is happening and an element of concern illustrated. The study of issues, concepts, processes are subsumed within the individual wishing to consider the 'bigger' question.

There were no sub-conceptions in this category

### YEAR 9 CONCEPTIONS INTER - RATER RELIABILITY TEST

Attempt to place the statements made by the respondents in one or more of the following conceptions - please write the code number of the statement in the space provided...

Note - it is acceptable for a part of a statement to fit one conception and another part to fit a different conception

#### 1. THE ACADEMIC CONCEPTION

Sub-conceptions

a. Geography as the study of place based on factual knowledge

b. Geography as the study of relationships between people and environment

c. Geography as an approach to the study of place and people-environmental relationships

#### 2. THE APPLIED CONCEPTION

Sub-conceptions

a. A systematic approach to the study of issues

b. A personal - practical approach

### 3. THE IDEALISTIC CONCEPTION

#### PUPIL STATEMENTS -WHAT IS GEOGRAPHY? YEAR 9

9.1 So we know all about the world and what is happening in it, the way the rocks and land formation, water rivers and many other things

9.3 Because we have to know where different places are in the world, how the world works and be aware of what's going on in the world

9.4 It will help me if I want to know where a place is or if I want to know how high a mountain is... I might get these sort of questions in an exam paper... I know a lot more about earthquakes/ volcanoes and mountains

9.5 So you can learn more about the planet you live on. Because of geography I know how rivers are formed, how floods are started and how dams on the Colorado work. We also learnt about Tonbridge and Hadlow in the first year. Its important to learn about the Earth so we can look after it better because we will have to live on it and consider what it will be like for future generations

9.6 Learning about different things like maps, races and living conditions of the world

9.7 Geography comes into mostly everything and you need it to get from A to B..it comes into the average everyday life... without it we would be a bit stuck. We wouldn't know how to get to places and find out answers to important

things... we wouldn't know about the weather or different layers of the Earth. Geography is mostly everything and life wouldn't be life without it

9.8 Geography we will need to know most about because have to know about the world we live in and if we went on holiday you need to know whereabouts you go

9.10 You not only use geography for maps and countries, places etc. but also to find out about tourist places and rivers like year 8

9.11 We need to find out about what the Earth is like, we have to learn about countries and their lifestyles. We learn about other countries because we can find out how they are living, like a Third World country people will live completely different say to people living in America. We find out about the world so we know what damage humans are doing to it and we can prevent things getting any worse

9.13 We learn more about other countries and the landscape... it is part of the National Curriculum. I will know about the temperatures in places when I go on holiday and I'll be able to read a map if I need it

9.14 It is important to know about landscape, different countries, cultures, rocks and water etc. We can learn a lot about our lives according to others.....you could say geography is every other subject and a little more. We don't do mapwork in any other subject and if we do its fantasy. Set projects with little information where we have to research ourselves we don't do in other subjects. Giving us knowledge about different rock and land types so we know what use we can put them to... it helps us how to use maps, how to dress in other cultures ... there are so many answers

9.15 I know more about the world, the state it is in and where places are in the world. It is important to know about the world so you can see what it is like and decide whether you want to go there on holiday

9.16 We have to learn about rocks, the world, climate etc. It is different because you learn about the world, the different races as well as world wide disasters. You need to know about countries and important world places as well as the different people

9.17 I know lots of things to do with other countries and know about all the natural disasters such as earthquakes

9.18 To understand how other people live and the countries in which they live. Also it will help us understand how rivers, land and other features are formed. If you moved to another country you would want to know about it, what type of people live there, what to expect. Every country is different and so are the

people... you can't expect people to believe the same things as you do, everyone is different. It is interesting to learn how things are formed and so it is important. If you visited somewhere with strange rock formations you would wonder how they got like that but if you had learnt about it you would already know ..... you could pass your information onto other people. You shouldn't take these things for granted it is important to learn about them

9.19 Learning about our area the types of land

9.20 It teaches us about the world and many things that go around the globe i.e. landforms and different countries

9.21 Geography teaches you about the world, the environment and much more. It gives you an in-depth look into things that happen and why they happen e.g. earthquakes

9.23 To have some knowledge about the world and the landscape

9.25 It helps us understand about the world and the places in it and how the Earth was made... I mean our environment, the world, the Earth we live on, like trees help us breathe, snow is water. Geography shows you more about your own environment from the rocks to the shops in your town or even your country. It helps us read maps...

9.27 Learning about places and what's inside them

9.28 You look at places and look at what their about and what activities are their..... countries and cities, also the population..... we've got to where places are and what they are like

9.29 To find out about places, how things work.....

9.31 Its to do with general knowledge, like population of countries and how the economics of each country works etc. Geography is a study of the world, knowledge of the world and the countries that surround us and their populations and economies. Also knowledge of the resources on the earth's surface and underground

9.32 Its the way of the land, the climate, the different countries....what they produce and nationality and everything, basically all about the countries..... I learn facts basically about the country

9.33 It is an understanding of places and countries.... it gives you a basic knowledge of different places and your own country and natural features..... you get to know a lot more about them. You can learn how to read maps, you can use a compass, natural directions

9.34 Its just to understand the world really and learn sort of rock types, to explain really.... what the world's like and what's happening in it

9.35 To learn about places in the world, learn how to read maps and the structure of the rocks..... its good to know these sort of things. You learn about the world itself and how its all formed and the rocks and if you need to know anything about certain countries, like culture, and you don't learn much elsewhere. Knowing about different countries and all the places. Not just the facts... you need to know about the parts to build up more information.... just like the places and the culture, if you know about them you can adapt and help you as well

9.36 We can learn about different places and the atmosphere and all that and you can learn about different rock forms and stuff..... there's a lot more to it you learn load of different things, instead of sticking to one thing, like countries to small plants and stuff

9.37 To give you a knowledge of other countries and like the world in general ..... it just sort of expands your knowledge of the world. In some ways its more practical than other subjects, like field trips these given you more of an idea, you can learn about all those different places

9.38 To learn about our own country..... we learn about the land that's different, about landscape and earthquakes and volcanoes, even about the weather and transport

9.39 Learning about the world..where countries are and everything..... where they are and how many people live their, how big it is. You don't seem to learn about the world in other subjects or how to read maps... I've learnt about different countries

9.40 Its about the world, different countries....about the environment, what's happening, its about different people. To help us learn what's going on in the world, you've got to know what's happening about places

9.41 We look at landscape to see whether the ground would be appropriate for the building of a school. In other subjects we don't really take notice of the outside. Geography shows us that we need to be aware of our surrounding areas and that because if we don't were just going to ignore it. You learn about the surrounding areas, textures of the Earth and the industries all around and other countries..... like the currencies, whether they have volcanoes and earthquakes and whether they have industry

9.42 The world.....learning about all different countries, where they are and everything.... we looked at earthquakes and what happens if countries have earthquakes or volcanoes

9.44 The world, discovering things about the world.... the rocks, what its made up of, people and the jobs the do, what hey have o face like volcanoes.....You learn about different places

9.45 Landscapes, learning about the world, mountains, hills, learning the country.....other countries. Fieldtrips, going out we don't do that much about going into detail about streams and rivers in other subjects

9.46 You learn all the kinds of rocks, fossils, land and places. The world, it develops and what it does. Places to visit, what they've got in them... we did energy and water

9.47 Its a study of the world, what its got on it, how it is formed and everything... you've got to learn about the world

9.48 Its about learning different countries of the world and learning how to draw maps and map reading..... where they all are and where to find them. Its to do with other things like volcanoes. Geography is to do with the time now

9.49 Its sort of like about the countries, tell us about the countries, how to and what energy resources are and things like that, population and volcanoes and things like that

9.50 I would say its about the world and learning about different countries and what happens to them

9.51 I'd say its about maps, about all the countries, where places are..... how different cities are

9.52 Its about learning the world, different places, all different areas and you do map reading. Its interesting because if you go on trips you like know where they are and everything and you know a lot about it

9.53 It is what is happening and about places and things, their different cultures and way of life.... finding out about places

9.54 Its about volcanoes and earthquakes and things that happen to the Earth...what its made of.... we have to do about countries.. if I'm near a volcano I'd know what to do

9.55 So you know what's there and if you have never visited a place, like Scotland, you don't really know what's there

9.56 You learn about places, rivers and countries. What places are like and what the climate is and if places have deserts and things

9.57 Finding thing on maps, knowing about the environment and like the things around you.... just to learn about it and that, the environment so we know how to treat it

9.58 Your learning about the Earth and you'll probably understand it more if your older....your always concentrating on issues, main issues sort of things like earthquakes and Journey across Africa..... your always using a map and finding out what's near anything

9.59 Things to do with the ground, rocks and earthquakes.....going out on fieldtrips, you need it everyday to find places

9.60 To study the earth because its what you live on and people want to know as much as they can. It's hard you *get all* the different subjects in geography and some of them are hard.... we study the earth and that's different

9.61 Its about the structure of the Earth and the way it forms and moves and the different types of rocks that can be found and the way it is

9.62 Things that happen to the Earth like earthquakes and volcanoes, housing a and populations and things..... you learn about what people live there and how many, about the country....geography is like more modern

9.64 Its to learn about things and how they are formed and everything.... rocks and rivers

9.65 You deal with a lot more issues with other countries, so it gives you experience about other countries... geography is more in depth.... you learn about all the figures, population and things like that

9.66 I've always found that geography connects to the other subjects, like the time we did fossil fuels in geography we were doing it in science, there's all these general qualities. Geography just goes on bringing out those qualities in the area which involves going places and everything. Geography's about what the world is like and helps you prepare you for when you are going to other places

9.67 Geography gives you a taste of what it its like for the future I didn't expect it to be things like tourism, I didn't consider that part of geography. Geography was just capitals and population and stuff, at secondary school you find out its about tourism and pedestrianising Tonbridge High Street..... I think geography is just about places, landscapes, rock formations and things like that, capitals, population, imports and exports... a subject about facts

9.70 You've got to know where places are, you've got to get used to looking a t maps, finding places. I thought it would involve places around the world. It gets

us ready to do our coursework next year, like the project on France it prepares me, it organises me more

9.71 I just thought it was maps and landscapes and things, we're now doing a project on France, I didn't expect that. Just to learn about places and learn how to use things like maps, geography shows you what to do

9.72 There's a wider range of topics in geography than you do in other subjects like tourism, its all mixed up you just don't do three things each year

9.73 Its all about climate and the world and pollution ... all the things about the world.... you learn about different parts of the country

9.74 Learning about the world, the community... food, economical things, agriculture, types of people

9.75 It helps you learn about things around, like population..... like thing in everyday life.... land, things that come from the land like coal.....

9.76 I like it, geology's quite interesting, I like studying about rocks. It is important to know about other places. other countries to know about the traditions and cultures. Its quite important to know how the Earth's made up

9.78 It's about the world

9.79 It gives people an understanding of landscape and tells them where places are helps them to learn about climates. You find out more about countries, population and that and most important industries

9.80 You learn about the environment, places and cultures..... if you go their on holiday you can respect their way of life

9.81 You've got to know about places and you couldn't be just left at all not knowing anything about where places are or what sort of rocks or temperatures are, you need to know something. Its got links with science but we do a lot more projects..... the physical things that actually happen

9.82 Learning to work, writing paragraphs, learning about different countries, different cultures, buildings and climates. So we can look at things like energy and the whole country and if we ever visit there we know what to expect and what people in certain countries think

9.83 Its looking at different aspects of countries... it's the physical side of the country, what the place is like, the people and things like that, things that are relevant to us. You look at different parts of it and things you don't look at in anything else like the physical side



9.84 I thought geography was just about the world and places but its about everything like the make up of the land, rivers. You learn a lot more about places than you do in other subjects... but its as lot of knowledge about places and things like that

9.85 Its interesting you learn about other countries, what there like... its to learn about the world...we go into things in more detail in geography like the climate....

## Appendix D: Active Data

### Contextual Information

- Personal diary of daily school routine from 10/10/90-20/01/96: 5 in total
- Log book of each class for first three years of GNC: 8 in total
- Diary of individual lessons for each class for three years of GNC: 8 in total
- Interviews with geography staff: 5 in total
- Written accounts by geography staff; 5 in total
- Methodological diary
- End of unit evaluations completed by staff: 13 in total over Key Stage 3

### Specific pupil data

- Pupil diaries
  - Y7 43 in total
  - Y8 32 in total
  - Y9 26 in total
- Pupil interviews
  - Y7 10 in total
  - Y8 42 in total
  - Y9 61 in total

This equates to approximately 1000 sides of A4 transcribed text

## Appendix E: National Curriculum KS3 Planning 23/4/91

### Key Points

#### 1. The nature of the pupils

- links into ideas of progression and differentiation: these are vital planning concepts, although we cannot plan level by level.
- the type of grouping in school

#### 2. Planning framework for KS3

Possibilities include:

- areal (local to global)
- topic e.g. rivers (would be short perhaps)
- thematic (strands)
- conceptual (too difficult for our pupils?)
- mixture e.g. areal and thematic
- ecosystem (people and environment)
- my concern is we could have a mixture of topics that are not linked and don't have an overall philosophy
- if we have a modular approach will the pupils care if we have a philosophy/framework?
- what is the role of the existing syllabus?
- length of units re timetable, pupils ability, deadlines
- spiral curriculum, a chance to re visit?

#### 3. Teaching and learning strategies

- needs to link to nature of pupils
- availability of resources including IT
- fieldwork

#### 4. Assessment

- integrated and summative?
- profiles what role do they have/
- on going i.e. observation based?
- revisiting SOAs?

#### 5. Extensive curriculum

- should KS3 just form minimum should we expect more in certain areas e.g. environment where we cover more/depth

### Appendix F: Key Stage 3 Framework

Year 7	Years 7 & 8			Year 9	
Our Environment Home Region	Living	Settlement Transport	Global Review	Development North South	One world
	Working	Economic Activities		Country regional coverage	Interdepen dence
	Playing	Leisure Tourism		People- environmental disparities	Global issues
	Consuming	Energy Water			
<i>Syllabus</i>	<i>Guiding Concepts</i>	<i>Syllabus</i>	<i>Syllabus</i>	<i>Syllabus</i>	<i>Syllabus</i>

Appendix G: Scheme of work planning framework

Key Questions	Possible Content	Method	Resources	Differentiation	Assessment Style	Record Keeping	Timing	POS	Cross Curricular	IT

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## Appendix H: Recording SoAs

Name: ..... Group..... Class .....

A T	Level 3						Level 4						Level 5						Level 6							Level 7						
	A	B	C	D	E	F	A	B	C	D	E	F	A	B	C	D	E	F	A	B	C	D	E	F	G	A	B	C	D	E	F	G
Geog Skills																																
Know/und of places																																
Physical geog																																
Human geog																																
Environ geog																																

## Appendix I: An example of a completed scheme of work

### UNIT PLANNING FRAMEWORK - THE HOME REGION

Enquiry Questions	Intended Learning Outcomes	Method	Resources	Differentiation	Assessment	Record Keeping	Timing	POS	Cross Curricular	Information Technology
Where is it?	Analysis of slides/photo's/pictures	Individual work/ group recognition/ map work of places	Calendar/slide Maps of SE	Possible group or individual	Place recognition/ map work	Informal observation log	1 lesson			
Where is it?	Mapping of UK regions and place of SE. Countries in SE. questions on size, direction etc.	Use of atlases on individual basis	UK region maps and SE counties Atlases	Detail on maps - task	Map work accuracy	Mark book	2 lessons			
Where is it?	SE and Europe: mapping countries/major cities. EEC - questions on map work	Atlas/individual use	Europe maps		Knowledge of European countries					
What is the physical background to the SE?	Physical background - scenery of SE - recognise/ name various features: question on recognition/shapes	Use of slides: Q&A	Slides	Terminology of land forms: task/outcome			1 lesson			
(a) What different rocks are there?	- rock types: use of samples with Q. Idea of SE all sedimentary	Group work - use samples/answer questions.	Rock samples		Oral assess in Q&A	Log book	1 lesson			
(b) Where are they found?	- SE geology and structure which provides succession	Mapping - atlas work X section individual work	Geology maps/ atlases. SE structure W/S	Detail on map? (task)			2 lessons			
(c) How do they effect the land?	- relief and drainage: look for links between rocks and R/D. Impermeable/permeable springs	Overlay map of R&D/geology	Training paper/ texts. Work sheet on springs	(SE contour extension) model?	Map work - detail/ accuracy. Homework?	Mark book	1 lesson			
How is the land changed?	Processes of erosion/weathering: notes and comprehension	Didactic Q&A in textbook	Text books				1 lesson			

## Appendix J: Chapter Seven Conceptions of Geography

This appendix includes all the pupil responses to the question what is geography that were not used in the main body of the thesis. They are categorised in relation to which conception they apply. Side headings are used to indicate where they would have been inserted into the discourse. Further commentary, however, is not required.

The traditional conception of geography

Sub-conception1: The study of place based on factual knowledge

a. Simple level - related to places

...About the countries in the world (7.7)...

... Geography is about countries, towns and places (8.16)...

... Geography is about places (8.28)...

... Geography is looking at different countries and looking at the world (8.25)...

... Its about countries and towns, it tells you all about things around the world (8.36)...

... Because we have to know where different places are in the world (9.3)...

... I know lots of things to do with other countries (9.17)...

... To have some knowledge about the world (9.23)...

... To find out about places (9.29)...

... Learning about places and what's inside them (9.27)...

... We learn more about other countries and the landscape... it is part of the National Curriculum (9.13)...

...The world.....learning about all different countries, where they are and everything (9.42)...

... I would say it's about the world and learning about different countries (9.50)...



... I'd say it's about maps, about all the countries, where places are (9.51)...

... I know more about the world, the state it is in and where places are in the world. It is important to know about the world so you can see what it is like and decide whether you want to go there on holiday (9.15)...

b. geography as a list

... Geography is about rocks, climate, world, countries, places and people. It involves everything in some sort of way (8.8)...

... Geography is about the world. It's about population, towns, cities, countries, hills, valleys, rocks and rivers (8.18)...

c. geography as the accumulation of facts

... basically all about the countries..... I learn facts basically about the country (9.32)...

d. the physical aspect of geography

... Everything going on in the world ..... the physical background (8.13)...

... Geography is about rocks and fossils (8.21)...

... We have to learn about rocks, the world, climate etc (9.16)...

... I know lots of things to do with other countries and know about all the natural disasters such as earthquakes (9.17)...

... It teaches us about the world and many things that go around the globe i.e. landforms and different countries (9.20)...

... You learn all the kinds of rocks, fossils, land and places.... we did energy and water (9.46)...

... Things to do with the ground, rocks and earthquakes.....going out on fieldtrips (9.59)...

... It's all about climate and the world and pollution ... all the things about the world (9.73)...

e. a summary of the knowledge base of the subject

... Its the way of the land, the climate, the different countries....what they produce and nationality and everything, basically all about the countries..... I learn facts basically about the country (9.32)...

...I thought geography was just about the world and places but its about everything like the make up of the land, rivers. You learn a lot more about places than you do in other subjects... but its a lot of knowledge about places and things like that (9.84)...

#### Sub-conception 2: The study of relationships

##### a. people and environment relationships

... It can mean a lot of things like where water comes from, what we can use water for, what energies we use (8.48)...

... learning how to deal with problems like pollution....doing climate maps and climate around the world. (8.57)...

##### b. people-people relationships

... About different countries... about their way of life and customs (7.27)...

... the way villages and towns have changed by the population and by the way man has built houses (7.28)...

... Places in the world, what's happening to our world..things like that, anything taking place like the Kuwait War (7.43)...

... Geography is about our world. Its people, cities, countries, how the people live, work and enjoy themselves (8.5)...

... I think geography is all about life - what we do at work and travel etc. (8.14)...

... how we and other people live (8.24)...

... To understand how other people live and the countries in which they live. (9.18)...

#### The applied conception off geography

##### Sub-conception 1: A systematic approach

##### a. related to the study of issues

... A subject on towns, people, transport and all things around the world.... also the new ways of water, electric and recycling..... about famine, wars of countries (8.29)...

... Its about learning how to deal with problems like pollution. Its getting more spread out into wider areas, we were doing mainly the environment, water is part of the environment and population, and getting into larger areas of work to do (8.57)...

... It helps us understand about the world and the places in it and how the Earth was made... I mean our environment, the world, the Earth we live on (9.25)...

... To find out about places, how things work. (9.29)...

... Its about the world, different countries....about the environment, what's happening, its about different people. To help us learn what's going on in the world, you've got to know what's happening about places (9.40)...

... The world, discovering things about the world.... the rocks, what its made up of, people and the jobs they do, what they have to face like volcanoes (9.44)...

... Its a study of the world, what its got on it, how it is formed and everything... you've got to learn about the world (9.47)...

... Your learning about the Earth and you'll probably understand it more if your older....your always concentrating on issues, main issues sort of things like earthquakes and Journey across Africa (9.58)...

... You deal with a lot more issues with other countries, so it gives you experience about other countries... geography is more in depth.... you learn about all the figures, population and things like that (9.65)...

## Sub-conception 2: A personal approach

### a. related to finding places and map reading

... You not only use geography for maps and countries, places etc. but also to find out about tourist places (9.10)...

... I will know about the temperatures in places when I go on holiday and I'll be able to read a map if I need it (9.13)...

... It helps us read maps (9.25)...

... You can learn how to read maps, you can use a compass, natural directions (9.33)...

... Its about learning different countries of the world and learning how to draw maps and map reading (9.48)...

... Its about learning the world, different places, all different areas and you do map reading. Its interesting because if you go on trips you like know where they are and everything and you know a lot about it (9.52)...

### Appendix K: Chapter Eight Conceptions of Learning Geography

This appendix includes all those comments relating to the question of learning in geography that were not used in the main body of the thesis. They are categorised in relation to which conception they apply. Commentary is found in the main body of the thesis.

#### Learning as increasing one's geographical knowledge

... you have to concentrate and take it in (9.37)...

...all you had to do was write down a few notes and you learn (9.53)...

... you take in the information (9.67)...

... I suppose you learn just by reading through the paragraphs and taking it in (9.84)...

#### Learning as memorising

... I've tried revising in a different way by writing out the work in a little notebook time and time again (9.26)...

... you just know it, its not like doing anything, its just there I read through it a couple of times (9.32)...

... I read it and keep going over it to remind myself until I remembered about three times (9.44)...

... I kept reading it and was asked questions, you could learn it in rhyme (9.56)...

... I'd study it and read it , read what I'd done about 10 times (9.74)...

... I'd go back through the books, find where I started and just read through and try to recap any bits I wasn't sure of (9.84)...

... I read it quite a few times, maybe four and then I test myself to see if I can remember it (9.85)...

#### Learning as application

... like if you wanted you could travel the world, go round the world and you would know where all the places were and you wouldn't get stuck as you'd know where to go (9.48)...

... like if I went on holiday to a country that had earthquakes and volcanoes then I'd know what it is and what to do (9.50)...

... if you wanted to go abroad you know where places are (9.51)...

... its interesting like if you go on trips you like to know where they are and everything and you know a lot about it (9.52)...

... I suppose if you were going on holiday you'd need a map and you'd be able to read the map (9.57)...